

# Flora of Mongolia: annotated checklist of native vascular plants

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#### **Abstract**

In this study, we critically revised and updated the checklist of native vascular plants of Mongolia. The checklist comprises 3,041 native vascular plant taxa (2,835 species and 206 infraspecific species) from 653 genera and 111 families, including 7 lycophytes, 41 ferns, 21 gymnosperms, and 2,972 angiosperms. In the angiosperms, we identified the 14 families with the greatest species richness, ranging from 50 to 456 taxa. Species endemism is also noted here; 102 taxa are endemic to Mongolia, and 275 taxa are subendemic that co-occur in adjacent countries. Since 2014, a total of 14 taxa have been described new to

science based on morphological evidences. Moreover, five genera and 74 taxa were newly added to the flora of Mongolia. Based on our critical revisions, names of three families, 21 genera, and 230 species have been changed in comparison to the previous checklist, "Conspectus of the vascular plants of Mongolia" (2014).

#### **Keywords**

Checklist, flora of Mongolia, native taxa, vascular plants

#### Introduction

Mongolia is located in the mid-latitude (between 41°35'N–52°09'N and 87°44'E–119°56'E), between Russia and China, covering approximately 1.6 million km², roughly equivalent to the size of western and central Europe. The flora of Mongolia is comprised of native species of different origins including boreal, steppe, desert, and mountainous elements of vegetation (Hilbig 1995; Gunin et al. 1999). The country is divided into sixteen phytogeographical regions which have various vegetation types (Grubov and Yunatov 1952), namely, alpine steppe, forest, meadow steppe, typical steppe, desert steppe, and desert (Gunin et al. 1999; Baasanmunkh et al. 2021a). Mongolia has a significant amount of temperate grasslands and semi-arid desert (Gunin et al. 1999; Wesche et al. 2016), which cover about 80% of the country's area (Pfeiffer et al. 2020). Overall, the species richness of vascular plants in Mongolia is not particularly high compared to other countries in Asia (Du et al. 2020; Li et al. 2020; Wang et al. 2020). However, Mongolia has the world's largest intact grassland with respect to its biodiversity (Batsaikhan et al. 2014; Hurka et al. 2019), which has great importance for the preservation of native vascular plants.

# A brief history of listing of the flora of Mongolia and recent taxonomic revisions

Historically, floristic studies have been very thoroughly conducted in this country, although recent updates are continuously being made. The first checklist of vascular plants included 1,897 species belonging to 555 genera and 97 families (Grubov 1955). Then, Grubov (1982) updated the checklist of vascular plants, which included 2,239 taxa from 599 genera and 103 families, with an identification key and information on their regional distribution and representative habitats. Later, Gubanov (1996) published a checklist with 2,823 higher plant species from 662 genera and 128 families, including notes on their regional distribution. More recently, Urgamal et al. (2014) updated the families of vascular flora according to APG III, with a total of 3,127 taxa that belong to 683 genera and 112 families. Since 2009, nine volumes with selected families have been published by Mongolian botanists, including Cyperaceae (Nyambayar 2009a), Apiaceae to Cornaceae (Urgamal 2009), Huperziaceae to Ephedraceae (Ulziikhutag et al. 2015), Asteraceae (Dariimaa 2014, 2021; Dariimaa and Saruul 2017), Ceratophyllaceae to Zygophyllaceae (Urgamal et al. 2020), Amaranthaceae s.l. (incl. Chenopodiaceae) (Tungalag 2020), Nymphaeaceae to Asphodelaceae (Urgamal et al. 2021).

Additionally, several families and genera have been revised in recent years. For example, a new checklist of the Brassicaceae family, the fifth-largest family in the country, was provided by German (2015). Taxonomic notes and checklists of *Aquilegia* L., *Stipa* L., and *Primula* L. were compiled by Erst et al. (2016), Zhao et al. (2019) and Baasanmunkh et al. (2020a), respectively. Recently, Troshkina (2021) revised and updated Geraniaceae in Mongolia. Baasanmunkh et al. (2021b) compiled a checklist of Orchidaceae, which included notes on their species richness and conservation status. The families Menyanthaceae and Nymphaeaceae were also revised by Baasanmunkh et al. (2022a). Additionally, some thorough regional floristic works were published: for the Khangai (Biazrov et al. 1989) and the Dzungarian Gobi regions (Baasanmunkh et al. 2021a). Moreover, an updated checklist of endemic plant species was recently provided by Baasanmunkh et al. (2021c), which comprises 102 taxa (95 species, 5 subspecies, and 2 varieties) from 43 genera and 19 families in the flora of Mongolia.

# New additions to the flora of Mongolia

Since Urgamal et al. (2014), 13 new species and one infraspecific taxon from Mongolia have been described as new to science (Nobis 2014; Erst et al. 2015, 2016; Kechaykin and Kutsev 2015; Yurtseva et al. 2016; Alexeeva 2018; Gundegmaa and Kechaykin 2018; Ovczinnikova 2019a, 2020; Pyak and Pyak 2019; Zhao et al. 2019; He et al. 2020; Pyak et al. 2020). Many new records of vascular plants have also been reported (Nobis et al. 2014, 2019a; Doronkin et al. 2015; Urgamal et al. 2016, 2019; Baasanmunkh et al. 2019a, b, c, 2020a, b, 2021b, d; Bazarragchaa et al. 2019; Erst et al. 2019; Ovczinnikova 2019b; Knyazev 2020; Shiga et al. 2020; Yano et al. 2021), including five genera new to the country, i.e. *Matthiola* W.T.Aiton, Brassicaceae (German 2015), Onoclea L., Onocleaceae (Doronkin et al. 2015), Aldrovanda L., Droseraceae (Shiga et al. 2020), *Hydrilla* L., Hydrocharitaceae (Shiga et al. 2020), and *Arctium* L., Asteraceae (Javzandolgor et al. 2021). Additionally, some genera previously listed by Urgamal et al. (2014) were omitted from Mongolian flora based on recent studies. In particular, the genus *Epipactis* Zinn. (Orchidaceae), for example, had two species that have been proven absent in the country due to the inaccurate location written on the herbarium specimens (Baasanmunkh et al. 2021b). On the other hand, some genera were not listed in Urgamal et al. (2014); for example, the genus *Phyllodoce* Salisb. (Ericaceae) was found in northern Mongolia by Oyunmaa and de Priest (2011). Furthermore, representatives of some genera, which are listed in the flora of Mongolia (Gubanov 1996; Urgamal et al. 2014), have been revised in recent studies (Podlech and Zarre 2013; Sukhorukov et al. 2013, 2019; Wang et al. 2014; Global Carex Group 2015; Duan et al. 2016; Drew et al. 2017; Kosachev 2017; Moore and Dillenberger 2017; Nosov et al. 2017; Pimenov 2017; Wiegleb et al. 2017; Boltenkov 2018; Gillespie et al. 2018; Madhani et al. 2018; Sinitsyna et al. 2018; Zhang et al. 2018; Barberá et al. 2019, 2020; Nobis et al. 2019b; Sramkó et al. 2019; Akan et al. 2020; Esput 2020; Friesen et al. 2020; Murakami et al. 2020; Nesom 2020; Ren et al. 2020; Zaika et al. 2020; Al-Shehbaz 2021; Al-Shehbaz et al. 2021; Liu et al. 2021).

# Necessity to update the list of flora of Mongolia

In 2016, the orders and families of flowering plants were updated by the APG IV (2016). Similarly, a new classification of ferns and lycophytes was provided for the first time (PPG I 2016). Given the recent updates to the international plant classification system, as well as a number of recent publications that identify new species and records and their distribution in Mongolia, there is a pressing need to revise and provide an updated list of the floristic diversity. Therefore, our study aims to present a thoroughly revised checklist of Mongolian native vascular flora that comprises the up-to-date names of all species, genera, and families, by conducting comparisons to the latest checklist, Conspectus of Vascular Plants of Mongolia by Urgamal et al. (2014) and earlier studies by Grubov (1982) and Gubanov (1996).

### **Materials and methods**

The systematic order and taxonomic circumscription of the families is based on the following classifications: Ferns and Fern Allies by PPG I (2016), Gymnosperms by Christenhusz et al. (2011), and Angiosperms by APG IV (2016). The names of accepted genera and species mostly follow Govaerts et al. (2021), which is currently maintained by Plants of the World Online (POWO 2021). Additionally, we reference recently published taxonomic revisions of certain families and genera. The authorship of species, genera and families is given after the International Plant Names Index (IPNI 2021); each species is provided with the author and respective publication as a reference. The name changes and most common synonyms, compared to the previous checklist, are also provided. Species endemism is given after Baasanmunkh et al. (2021c). Sub-endemic species are those that have also been found in at least one other country outside Mongolia, such as China, Kazakhstan, or Russia. For each species, we examined representative occurrence records based on the Global Biodiversity Information Facility (GBIF 2021, https://www.gbif.org/). We also compiled the phytogeographical regional distribution of all species, because species distribution is important information for species identification. The main herbaria for Mongolian flora (ALTB, LE, MW, MHA, NS, NSK, OSBU, TK, UBA, and UBU; acronyms follow Thiers 2021), Virtual Guide to the Flora of Mongolia (Rilke et al. 2012; Zemmrich et al. 2013; https://floragreif.uni-greifswald.de/floragreif/), and all literature data for the species' regional distribution, have been checked and studied. The regional distribution of the taxa mostly follows Gubanov (1996), Urgamal et al. (2014), German (2015), and Baasanmunkh et al. (2021a). In addition to these sources, we used a revision of Baasanmunkh et al. (2022b), where numerous species were added or excluded from some phytogeographical regions. Lastly, the checklist comprises only native species, thus non-native taxa are not included and should be adressed in a future publication.

#### **Results**

The current checklist comprises 3,042 native vascular plant taxa (including 2,891 species, 116 subspecies, 29 varieties, and 12 nothospecies), belonging to 653 genera and 111 families (Table 1, Fig. 1). The updated checklist is divided into four major taxonomic groups: lycophytes (2 families and 4 genera), ferns and fern allies (12 families and 17 genera), gymnosperms (3 families and 6 genera), and angiosperms (94 families and 626 genera) (see Table 1 for detailed numbers of taxa). Among these, angiosperms comprise 2,979 taxa, which constitute 97% of Mongolian flora (Table 1). We cross-checked the occurrence of each taxon using GBIF (2021), which includes occurrence data for 2,249 taxa (73% of Mongolian flora).



**Figure 1.** Species richness of genera (≥ 24 taxa) and families (≥ 57 taxa) of vascular flora of Mongolia. The names of only the most species-rich genera and families are shown.

Major taxonomic groups	Family	Genus	Taxon
Lycophytes	2	4	7
Ferns and fern allies	12	17	41
Gymnosperms	3	6	21
Angiosperms	94	627	2,972
Total	111	653	3,041

**Table 1.** Number of native Mongolia vascular plant taxa in each taxonomic group.

**Table 2.** The species richness of the total, endemic, and sub-endemic vascular plants of each phytogeographical region of Mongolia.

Region	Name of the phytogeographical regions	Taxon	Endemic	Sub-endemic
number				
1	Khuvsgul	1,054	7	63
2	Khentei	1,236	6	48
3	Khangai	1,514	27	87
4	Mongolian Dauria	1,198	6	54
5	Foothills of Great Khyangan	793	3	24
6	Khovd	1,011	10	68
7	Mongolian Altai	over 1400	47	114
8	Middle Khalkh	777	4	49
9	East Mongolia	952	3	50
10	Depression of Great Lakes	882	16	60
11	Valley of Lakes	466	5	39
12	East Gobi	462	2	57
13	Gobi Altai	865	16	76
14	Dzungarian Gobi	913	20	58
15	Transaltai Gobi	356	8	40
16	Alashan Gobi	262	2	43

There are 14 families with a high species richness (≥ 9 genera and ≥ 57 taxa): Asteraceae (85 genera and 456 taxa), Fabaceae (24 and 328), Poaceae (58 and 229), Rosaceae (28 and 168), Ranunculaceae (20 and 156), Brassicaceae (51 and 138), Cyperaceae (10 and 130), Lamiaceae (22 and 103), Amaranthaceae (30 and 94), Caryophyllaceae (20 and 97), Boraginaceae (24 and 78), Apiaceae (36 and 66), Polygonaceae (11 and 63), and Orobanchaceae (9 and 57) (Fig. 1). The remaining 97 families comprise a smaller set of taxa. At the genus level, 14 genera represent a high species richness (≥ 24 taxa): *Astragalus* L. (127 taxa), *Artemisia* L. (103), *Carex* L. (99) *Oxytropis* DC. (97), *Potentilla* L. (75), *Saussurea* DC. (55), *Taraxacum* F.H.Wigg. (53), *Allium* L. (50), *Salix* L. (42), *Ranunculus* L. (41), *Pedicularis* L. (36), *Poa* L. (28), *Viola* L. (27), and *Silene* L. (24) which is shown in Fig. 1.

In this study, a total of 275 sub-endemic taxa are provided which account for 9% of the total species of flora of the country. Among these, Fabaceae (74 taxa) show the highest number of sub-endemic taxa along with Asteraceae (60 taxa), Brassicaceae (23 taxa), Poaceae (18 taxa), and Amaranthaceae (9 taxa). The highest number of sub-endemic taxa were found in the Mongolian Altai (114 taxa) followed by Khangai (87 taxa), Gobi-Altai (76 taxa), Khovd (68 taxa), Khuvsgul (63 taxa), and the Depression of Great Lakes (60 taxa). The remaining ten regions have between 24 and 58 sub-endemic taxa (Table 2).

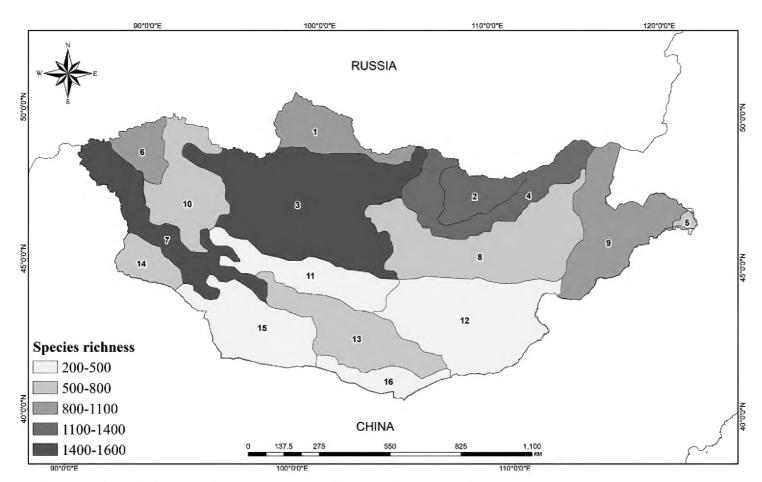


Figure 2. The species richness of native vascular plants of each phytogeographical region in Mongolia (I Khuvsgul 2 Khentei 3 Khangai 4 Mongolian Dauria 5 Foothills of Great Khyangan 6 Khovd 7 Mongolian Altai 8 Middle Khalkh 9 East Mongolia I 0 Depression of Great Lakes I I Valley of Lakes I 2 East Gobi I 3 Gobi Altai I 4 Dzungarian Gobi I 5 Transaltai Gobi I 6 Alashan Gobi).

Based on the species distribution across the 16 phytogeographical regions, six regions with high species richness (over 1,000 taxa) were identified: the Mongolian Altai (more than 1,400 taxa), Khangai (1,514 taxa), Khentei (1,236 taxa), Mongolian Dauria (1,118 taxa), Khuvsgul (1,054 taxa), and Khovd (1,011 taxa). The remaining ten regions have between 262 and 952 taxa (Table 2, Fig. 2).

In this study, we primarily excluded non-native species, including archeophytes that were listed in the previous checklist of Mongolia by Urgamal et al. (2014). As a result, 59 plant taxa found in Mongolia are considered non-native, including the families Cannabaceae (*Cannabis sativa* L.) and Portulacaceae (*Portulaca oleracea* L.). Several taxa were found to be archeophytes, which were introduced in "ancient" times and became naturalized as part of the native flora (a full list is given in Table 3).

#### **Discussion**

We revised the checklist of Mongolian vascular plants provided by Urgamal et al. (2014), which included 3,127 taxa, belonging to 683 genera and 112 families. Because the list comprised both native and non-native taxa, we first sorted non-native taxa out to make our study comparable. There were 3,069 native taxa from 682 genera and 110 families listed by Urgamal et al (2014) and the current checklist has been shortened and comprises 3,041 native vascular plant taxa from 653 genera and 111 families. Since

**Table 3.** List of non-native taxa that were included in the previous checklist of Mongolian flora but are excluded from this checklist.

No	Taxon name	No	Taxon name
	Amaranthaceae		Fabaceae
1	Amaranthus albus L.	30	Lathyrus oleraceus Lam.
2	Amaranthus blitoides S.Watson	31	Lathyrus sativus L.
3	Amaranthus cruentus L.	32	Lotus corniculatus L.
4	Amaranthus retroflexus L.	33	Medicago sativa L.
	Apiaceae	34	Melilotus albus Medik.
5	Anethum graveolens L.	35	Ornithopus perpusillus L.
6	Eryngium planum L.	36	Trigonella caerulea (L.) Ser.
7	Pastinaca sativa L.	37	Vicia angustifolia L.
	Asteraceae	38	Vicia faba L.
8	Cichorium intybus L.	39	Vicia sativa L.
9	Sonchus oleraceus L.	40	Vicia sepium L.
10	Xanthium orientale L.		Malvaceae
11	Xanthium strumarium L.	41	Hibiscus trionum L.
	Brassicaceae		Plantaginaceae
12	Berteroa incana (L.) DC.	42	Veronica peregrina L.
13	Brassica campestris L.		Poaceae
14	Brassica juncea (L.) Czern.	43	Avena fatua L.
15	Bunias orientalis L.	44	Avena sativa L.
16	Camelina caucasica (Sinskaya) Vassilcz.	45	Cenchrus americanus (L.) Morrone
17	Camelina sativa (L.) Crantz	46	Chloris virgata Sw.
18	Eruca sativa Mill.	47	Dactylis glomerata L.
19	Guenthera persica (Boiss. & Hohen.) D.A.German	48	Hordeum aegiceras Royle ex Walp.
20	Neslia paniculata (L.) Desv.	49	Hordeum distichon L.
21	Raphanus raphanistrum L.	50	Hordeum vulgare L.
22	Sinapis arvensis L.	51	Panicum miliaceum L.
23	Sisymbrium altissimum L.	52	Panicum miliaceum subsp. ruderale (Kitag.) Tzvelev
24	Sisymbrium volgense M.Bieb.	53	Secale cereale L.
	Cannabaceae	54	Setaria pumila Roem. & Schult.
25	Cannabis sativa L.	55	Setaria viridis (L.) P.Beauv.
	Caryophyllaceae	56	Triticum aestivum L.
26	Agrostemma githago L.		Polygonaceae
27	Gypsophila vaccaria (L.) Sm.	57	Fagopyrum esculentum Moench
28	Silene banksia (Meerb.) Mabb.	58	Fagopyrum tataricum (L.) Gaertn.
	Convolvulaceae		Portulacaceae
29	Calystegia silvatica (Kit.) Griseb.	59	Portulaca oleracea L.

Grubov (1955) provided the first checklist, more than 1,150 species have been added to the flora of Mongolia. In this study, the family Brassicaceae is based upon the work of German (2015), who recognized 141 species from 59 genera which significantly differs from the 160 species and 61 genera provided by Urgamal et al. (2014); this is because of misidentification of species and records from outside Mongolia being included in the latter publication. Since Urgamal et al. (2014), 14 taxa have been described as new to science based on morphological evidence, the majority of which are from Boraginaceae (Suppl. material 1: Appendix 1). Furthermore, 79 taxa have recently been added to the flora of Mongolia (Suppl. material 1: Appendix 1). On the other hand, many taxa are

synonymized and/or the names and status of numerous taxa were changed based on our critical revisions (list of the synonymized taxa is provided Suppl. material 2: Appendix 2). In particular, accepted names of three families, 21 genera, and 232 taxa have been changed/synonymized. Moreover, 21 taxa listed in the Urgamal et al (2014) were absent from Mongolia based on our extensive research which is given in Suppl. material 2: Appendix 2 (Pimenov 2017; Ovczinnikova 2019a; Nesom 2020; Baasanmunkh et al. 2021b, 2022a). Due to this high number of synonymization, even after dozens of new species have been discovered in Mongolian flora, change in absolute species numbers appeared to be minor.

Previous checklists of vascular plants in Mongolia (Gubanov 1996; Urgamal et al. 2014), listed both native and non-native taxa; however, there were no specific remarks for non-native taxa. Recently, many researchers have published checklists of non-native plants, mainly in Europe and East Asia, for example, concerning China (Xu et al. 2012), Italy (Galasso et al. 2018), South Korea (Korea National Arboretum 2021) as well as the Russian Far East and Siberia (Ebel et al. 2014; Vinogradova et al. 2020). These works aim to increas awareness about invasive species and strengthen their biosecurity regulations. This level of detail is important because invasions have complex and often immense long-term direct and indirect effects on native natural communities (Pagad et al. 2018; van Kleunen et al. 2019; Pyšek et al. 2020). In many Central Asian countries, there is no separate checklist for non-native plants species (Sennikov and Lazkov 2021). The first checklist of alien species was recently published for Kyrgyzstan by Sennikov et al. (2021). In Mongolia, approximately 35 non-native plants taxa are recognized in GBIF (Munkhnast et al. 2020), but this list has not critically revised all non-native plants species of the country. In this study, we primarily excluded non-native species that were listed in the previous checklist of Mongolia, including two families Cannabaceae (Cannabis sativa L.) and Portulacaceae (Portulaca oleracea L.) and 57 other taxa (Table 3).

Mongolia has a relative small number of endemic vascular plants, with 102 taxa belonging to 43 genera and 19 families, accounting for only about 3% of the country's total flora (Baasanmunkh et al. 2021c). Notably, the Mongolian Altai and Khangai regions harbor over 70% of the total endemics and sub-endemics of Mongolia, which reflects their high species richness (Fig. 2; Table 2). This could be due to the diverse habitats along the Altai mountains and the large expanse of forest and mountain-steppe in both regions. Regional distribution of new species, new records, and recently revised genera and families, were provided based on literature. It is important to highlight that the study does not entirely revise regional distribution of each taxon. Nonetheless, we have been working on the grid distribution map of vascular plants (see Baasanmunkh et al. 2021b, 2022a) since 2020 based on critical revision of herbarium specimens, literature, and our own field observation data.

Both of the online databases are allowing researchers to collaborate and revise Mongolian taxa more readily and will continue to improve the documentation of Mongolia's flora. To date, a total of 2,249 taxa (ca. 73% of the flora) have been deposited in the database of GBIF (2021). Furthermore, the data for 1,249 species (including herbarium specimens and/or images of living plants) are at least partially available in the database of the Virtual Guide to the Flora of Mongolia (Rilke et al.

2012; Zemmrich et al. 2013; https://floragreif.uni-greifswald.de/floragreif/). Moreover, approximately 19,300 images of 1,780 taxa have been observed as part of citizen science contributions to the "Flora of Mongolia" project on the iNaturalist platform (https://www.inaturalist.org/projects/flora-of-mongolia?tab=observations), which was established on January 2019.

In this study, we checked more than 70 works published since 2013 that have revised the flora of Mongolia, and provided respective references for each species in our checklist. We reviewed the species status of all vascular flora of Mongolia and made critical changes by adding, synonymizing, and excluding taxa; this work resulted in 265 fewer taxa compared to Urgamal et al. (2014). We believe that our revised checklist serves as an essential background and reference not only for scientists and students, but also for local government administrations and protected areas, for the conservation of Mongolian flora. Having an updated checklist allows researchers and communities to monitor plants as climate and land use changes, and population size and herding pressures increase. We recommend more research be conducted on regional flora, as well as comprehensive revisions of species distribution based on herbarium collections for phytogeographical regions and taxonomic revision of doubtful taxa.

# Annotated checklist of native vascular flora in Mongolia.

The families in the checklist are alphabetically ordered and, within them, the genera, species, and subspecies are alphabetically listed. The currently accepted names are highlighted in bold italics. The most common synonyms (previously used in Urgamal et al. (2014)) and the species' distribution in phytogeographical regions are provided here. Symbols used in the checklist include endemic [E] and sub-endemic [SE].

# I Lycophytes

1. Lycopodiaceae P.Beauv. (3 genera and 5 species)	
Diphasiastrum alpinum (L.) Holub	[1, 2]
Diphasiastrum complanatum (L.) Holub	[1]
Huperzia selago (L.) Bernh.	[1, 2]
Lycopodium annotinum L.	[1, 2]
Lycopodium clavatum L.	[2]
2. Selaginellaceae Willk. (1 genus and 2 species)	

[1, 3, 4, 8]

[1, 2, 3, 4, 8]

#### II Ferns and fern allies

Selaginella borealis (Kaulf.) Spring

Selaginella sanguinolenta (L.) Spring

3. Aspleniaceae Newman (1 genus and 5 species)	
Asplenium altajense (Kom.) Grubov	[1, 3, 4, 7, 10, 13]
Asplenium ruprechtii Sa.Kurata	[2, 3, 4]

Asplenium ruta-muraria L. Asplenium septentrionale (L.) Hoffm. Asplenium yunnanense Franch.	[7, 14] [7, 8, 10, 14] [7, 13]
4. Athyriaceae Alston (2 genera and 4 species)  Athyrium filix-femina (L.) Roth  Athyrium monomachi Kom.  Athyrium sinense Rupr.  Diplazium sibiricum (Turcz.) Sa.Kurata	[1–5] [2, 3, 4, 5] [3, 5, 9] [1–5]
5. Cystopteridaceae Shmakov (2 genera and 4 species)  Cystopteris fragilis (L.) Bernh.  Cystopteris sudetica A.Braun & Milde  Gymnocarpium dryopteris Newman  Gymnocarpium jessoense (Koidz.) Koidz.	[1–10, 13, 14, 15] [2] [2, 4] [1, 2, 3, 4, 5, 8]
<b>6. Dennstaedtiaceae</b> Losty (1 genus and 1 species)  Pteridium aquilinum (L.) Kuhn	[2, 3, 4, 5]
7. Dryopteridaceae Herter (1 genus and 3 species)  Dryopteris dilatata (Hoffm.) A.Gray  Dryopteris expansa (C.Presl) Fraser-Jenk. & Jermy  Dryopteris fragrans (L.) Schott	[2, 5] [2, 5] [2, 3, 4, 5, 7, 10]
8. Equisetaceae Michx. (1 genus and 9 species)  Equisetum arvense L.  Equisetum fluviatile L.  Equisetum hyemale L.  Equisetum palustre L.  Equisetum pratense Ehrh.  Equisetum ramosissimum Desf.  Equisetum scirpoides Michx.  Equisetum sylvaticum L.  Equisetum variegatum Schleich.	[1-10, 14] [1-10, 14] [3, 4, 5] [1-10, 14] [1-7, 9, 10] [14] [1, 2, 3, 4, 6] [1-5, 8, 9] [1, 4]
9. Onocleaceae Pic.Serm. (2 genera and 2 species)  Matteuccia struthiopteris (L.) Tod.  Onoclea sensibilis L.	[2, 4] [2]
10. Ophioglossaceae Martinov (1 genus and 2 species)  Botrychium lanceolatum (Gmel.) Ångstr.  Botrychium lunaria (L.) Sw.	[3] [1–7, 9]

11. Polypodiaceae J.Presl. & C.Presl (2 genera and 2 species Lepisorus clathratus Ching	[13]
Polypodium virginianum L.	[1–5, 8]
12. Pteridaceae E.D.M.Kirchn. (2 genera and 2 species)  Cheilanthes argentea (S.G.Gmel.) Kunze  Cryptogramma stelleri (S.G.Gmel.) Prantl	[1–9, 12, 13] [1]
13. Thelypteridaceae Ching (1 genus and 1 species)  Phegopteris connectilis (Michx.) Watt	[2, 4]
14. Woodsiaceae Herter (1 genus and 6 species)  Woodsia calcarea (Fomin) Shmakov  Woodsia glabella R.Br.  Woodsia heterophylla (Turcz.) Shmakov  Woodsia ilvensis (L.) R.Br. [= Woodsia acuminata (Fomin) S  Woodsia pseudopolystichoides (Fomin) Kiselev & Shmakov  Woodsia subcordata Turcz.	•
III Gymnosperms  15. Cupressaceae Gray (1 genus and 4 taxa)  Juniperus communis L.  Juniperus pseudosabina Fisch. & C.A.Mey.  Juniperus sabina var. davurica (Pall.) Farjon [= Juniperus al Juniperus sabina L. var. sabina [2–4,	[1, 2, 3, 4, 6, 7] [1–4, 7, 8, 13] **lavurica Pall.] [2] 6–8, 10, 11, 13, 14]
16. Ephedraceae Dumort. (1 genus and 9 species)  Ephedra dahurica Turcz. [= Ephedra sinica subsp. dahurica  Ephedra equisetina Bunge  Ephedra fedtschenkoi Paulsen  Ephedra glauca Regel  Ephedra intermedia Schrenk & C.A.Mey.  Ephedra lomatolepis Schrenk  Ephedra monosperma J.G.Gmel.  Ephedra przewalskii Stapf  Ephedra sinica Stapf	[2, 3, 8, 9, 12] [3, 6–9, 12–16] [2, 3, 4, 7] [12, 14, 15] [7, 14, 15] [12, 14, 15] [1-8, 10, 12–14] [6, 7, 10–16] [2–5, 7–15]
17. Pinaceae Spreng. (4 genera and 8 species)  Abies sibirica Ledeb.  Larix czekanowskii Szafer  Larix gmelinii (Rupr.) Kuzen. [≡ Abies gmelinii Rupr.]  Larix sibirica Ledeb.	[1, 2] [4] [2, 4] [1–4, 6–8, 10, 14]

[1, 2, 3, 6, 7]

Picea obovata Ledeb.

Pinus pumila (Pall.) Regel Pinus sibirica Du Tour	[2] [1, 2, 3, 6, 7] [1–5, 8, 9]
Pinus sylvestris L.	[1-J, 6, 9]
IV Angiosperms	
18. Acoraceae Martinov (1 genus and 1 species)	
Acorus calamus L.	[1, 3, 4, 5, 8, 9]
19. Adoxaceae E.Mey. [including Viburnaceae Raf.] (3 genera ar	nd 6 species)
Adoxa moschatellina L.	[1-3, 5-7, 13]
Sambucus sibirica Nakai	[3, 6]
Sambucus williamsii Hance [= Sambucus manshurica Kitag.]	[1, 2, 3, 4, 5, 9]
Viburnum burejaeticum Regel & Herder	[5]
Viburnum mongolicum Rehder [= Lonicera mongolica Pall.]	[4, 5, 8, 9]
Viburnum sargentii Koehne	[5]
20. Alismataceae Vent. (2 genera and 4 species)	
	7, 8, 10, 11, 14]
Alisma plantago-aquatica L.	[1–5, 8–10, 14]
Sagittaria natans Pall.	[4, 9, 10, 14]
Sagittaria trifolia L.	[1, 4, 5, 9, 14]
21. Amaranthaceae Juss. [including Chenopodiaceae Vent.] (34 ge	enera and 94 taxa)
Agriophyllum pungens (Vahl) Link [= Agriophyllum squarrosun	<i>n</i> Moq.] [6–16]
Anabasis aphylla L.	[7, 14]
Anabasis brevifolia C.A.Mey.	[3, 6–8, 10–16]
Anabasis elatior (C.A.Mey.) Schischk.	[14]
Anabasis eriopoda Paulsen	[14]
Anabasis pelliotii Danguy	[14]
Anabasis salsa Paulsen	[14]
Anabasis truncata Bunge	[7, 14]
Atriplex altaica Sukhor.	[7]
Atriplex cana C.A.Mey.	[14]
Atriplex fera (L.) Bunge [1, 3,	, 4, 8–10, 12, 13]
Atriplex laevis C.A.Mey. [3,	4, 8–11, 13–15]
Atriplex sibirica L.	[2, 3, 4, 6-16]
Atriplex tatarica L.	[7, 10, 14]
Axyris amaranthoides L.	[2-5, 8, 9, 13]
Axyris hybrida L. [2-	-5, 7–10, 12–14]
Axyris prostrata L. [1-	-4, 6–10, 13, 14]
Bassia hyssopifolia (Pall.) Kuntze	[6, 7, 10-14]
Bassia prostrata (L.) Beck [≡ Kochia prostrata (L.) Schrad.]	
Bassia scoparia (L.) A.J.Scott [≡ Kochia scoparia (L.) Schrad.]	
Blitum virgatum L. [ $\equiv$ Chenopodium foliosum Asch.]	3, 4, 6, 7, 12–15]

		[( 10 1/]
	Camphorosma monspeliaca subsp. lessingii (Litv.) Aellen	[6, 10, 14]
	Caroxylon gemmascens (Pall.) Tzvelev [≡ Salsola gemmascens	Pall.] [10]
	Caroxylon passerinum (Bunge) Akhani & Roalson	[0 10 16]
	[≡ Salsola passerina Bunge]	[8, 10–16]
	Ceratocarpus arenarius L.	[6, 7, 10, 14]
	Chenopodiastrum hybridum (L.) S.Fuentes, Uotila &	
	Borsch $\equiv$ Chenopodium hybridum L.	[2, 3, 4, 5, 7-16]
	Chenopodium acuminatum Willd.	[3-14, 16]
	Chenopodium album L.	[1–16]
	Chenopodium ficifolium Sm.	[1, 9, 10, 11, 14]
	Chenopodium frutescens C.A.Mey.	[6, 7, 10]
	Chenopodium iljinii Golosk.	[7, 10]
	Chenopodium karoi Aellen	[1–15]
	Chenopodium novopokrovskyanum (Aellen) Uotila	
	[≡ Chenopodium album subsp. novopokrovskyanum (Ael	llen) Uotila] [7]
	Chenopodium strictum Roth	[2, 4, 9, 14]
	Chenopodium vulvaria L.	[3, 6–10, 13, 14]
	Climacoptera affinis (C.A.Mey.) Botsch.	
	[≡ <i>Pyankovia affinis</i> (C.A.Mey.) Mosyakin & Roalson]	[14]
	Climacoptera subcrassa (Popov) Botsch.	[14]
	Corispermum chinganicum Iljin	[1-12]
	Corispermum declinatum Steph. ex Iljin	[3, 4, 8]
	Corispermum elongatum Bunge	
	[≡ Corispermum stauntonii subsp. elongatum (Bunge) V	/orosch.] [10, 13]
	Corispermum mongolicum Iljin	[3, 4, 7-16]
SE	Corispermum patelliforme Iljin	[10, 13, 16]
SE	Corispermum tylocarpum Hance [= Corispermum gmelinii B	
	Dysphania botrys (L.) Mosyakin & Clemants	[7, 14, 15]
	Grubovia dasyphylla (Fisch. & C.A.Mey.) Freitag & G.Kad	
	[≡ Bassia dasyphylla (Fisch. & C.A.Mey.) Kuntze,	
	Kochia dasyphylla Fisch. & C.A.Mey.]	[3–16]
	Grubovia krylovii (Litv.) Freitag & G.Kadereit [≡ Kochia kr	
		[6, 7, 10–16]
	Grubovia melanoptera (Bunge) Freitag & G.Kadereit	[0,7,10 10]
	[≡ Kochia melanoptera Bunge]	[3, 6, 7, 10–16]
	Halocnemum strobilaceum (Pall.) M.Bieb.	[14]
	Halogeton glomeratus (M.Bieb.) C.A.Mey.	[7, 10, 11, 14, 15]
	Halostachys caspica C.A.Mey.	[14, 15]
	Haloxylon ammodendron (C.A.Mey.) Bunge	[7, 10–16]
	Iljinia regelii (Bunge) Korovin	[14, 15, 16]
	Kalidium caspicum (L.) UngSternb.	[14, 19, 16] $[10, 14]$
	Kalidium cuspidatum (UngSternb.) Grubov	[3, 8, 9, 12–16]
	Kalidium foliatum Moq.	[3, 6, 7, 12-16]
	12000000000000000000000000000000000000	[3, 0-10]

SE	Kalidium gracile Fenzl	[3, 4, 8-16]
	Krascheninnikovia ceratoides (L.) Gueldenst.	
	[= Krascheninnikovia ewersmanniana (Stschegl.) Grubov]	[1, 3, 4, 6–16]
	Micropeplis arachnoidea (Moq.) Bunge	
	[= Halogeton arachnoides Moq.]	[4, 6–16]
SE	Nanophyton grubovii U.P.Pratov	[10]
SE	Nanophyton mongolicum U.P.Pratov	[7, 14]
	Oreosalsola abrotanoides (Bunge) Akhani [≡ Salsola abrotanoi	
		[6–13]
	Oxybasis chenopodioides (L.) S.Fuentes, Uotila & Borsch	
	[≡ Chenopodium chenopodioides (L.) Aellen]	[7, 10, 14]
	Oxybasis glauca (L.) S.Fuentes, Uotila & Borsch [≡ Chenopole	
		[2–16]
	Oxybasis gubanovii (Sukhor.) Sukhor. & Uotila	
	[≡ <i>Chenopodium gubanovii</i> Sukhor.]	[10, 14]
	Oxybasis rubra (L.) S.Fuentes, Uotila & Borsch	£ , ,
	[≡ Chenopodium rubrum L.]	[3, 7, 10, 14, 15]
	Oxybasis urbica (L.) S.Fuentes, Uotila & Borsch	
	[≡ Chenopodium urbicum L.]	[4, 10]
	Petrosimonia litvinowii Korsh.	[10]
	Petrosimonia sibirica Bunge	[14]
SE	Salicornia altaica Lomon. [≡ Salicornia perennans subsp.	
	G.Kadereit & Piirainen]	[7]
	Salsola collina Pall. [≡ Kali collinum (Pall.) Akhani & Roalso	n] [2–15]
SE	Salsola ikonnikovii Iljin [≡ Kali ikonnikovii (Iljin) Akhani &	
	, -	[7, 11, 12, 13]
	Salsola jacquemontii Moq [≡ Kali jacquemontii (Moq.) Akha	ni & Roalson]
		[8, 13]
	Salsola laricifolia Litv.	[12, 13, 16]
	Salsola monoptera Bunge [≡ Kali monopterum (Bunge) Lomo	on.] [3, 6–13]
	Salsola paulsenii Litv. [= Kali paulsenii (Litv.) Akhani & Roa	
		[3, 7, 9–11, 14]
	Salsola rosacea L.	[7, 14]
	Salsola tragus L.	[2, 3, 4, 6–16]
	Soda foliosa (L.) Akhani [≡ Salsola foliosa L. ≡ Neocaspia foliosa	(L.) Tzvelev] [14]
	Suaeda acuminata (C.A.Mey). Moq.	[6, 10, 14]
	Suaeda corniculata (C.A.Mey.) Bunge subsp. corniculata	[1, 3–16]
	Suaeda corniculata subsp. mongolica Lomon. & Freitag	[3, 4, 7-11]
	Suaeda glauca (C.A.Mey.) Bunge	[4, 9, 16]
	Suaeda heterophylla (Kar. & Kir.) Bunge	[10–15]
	Suaeda kossinskyi Iljin [≡ Bienertia kossinskyi (Iljin) Tzvelev]	
	Suaeda linifolia Pall.	[10, 14]
	Suaeda prostrata Pall. [= Suaeda maritima auct. non L.]	[6, 9–13, 16]

	Suaeda przewalskii Bunge [≡ Bienertia przewalskii	i (Bunge) G.L.Chu]
		[10–13]
	Suaeda salsa (L.) Pall.	[8–13, 15, 16]
	Suaeda sibirica Lomon. & Freitag	[3, 4, 8, 9, 10]
SE	Suaeda tschujensis Lomon. & Freitag	[6, 7]
SE	Suaeda tuvinica Lomon. & Freitag	[3, 6, 10]
	Sympegma regelii Bunge	[7, 10–16]
	Teloxys aristata (L.) Moq. [≡ Chenopodium aristata	
	≡ Dysphania aristata (L.) Mosyakin & Clema	
	<i>Xylosalsola arbuscula</i> (Pall.) Tzvelev [≡ <i>Salsola arbu</i>	uscula Pall.] [7, 13–16]
	<b>22. Amaryllidaceae</b> J.StHil. (1 genus and 50 taxa)	
	Note: According to Sinitsyna et al. (2018), Allium spir	<i>irale</i> is absent in Mongolia
	and A. subangulatum was found in southern Gobi by	Friesen et al. (2020).
	Allium altaicum Pall.	[1–3, 6–8, 10, 13, 14]
	Allium amphibolum Ledeb.	[1-4, 6, 7, 10, 13, 14]
	Allium anisopodium Ledeb.	[2–13]
SE	Allium austrosibiricum N.Friesen	[3, 6, 7, 10, 14]
	Allium baicalense Willd. [= Allium senescens	
	subsp. <i>glaucum</i> (Schrader) Dostál]	[1, 3-5, 9, 10]
	Allium bidentatum Fisch.	[1–6, 8–12, 14]
	Allium burjaticum N.Friesen	[3, 4, 8]
	Allium carolinianum Redouté	[14]
	Allium chamarense M.M.Ivanova	[1, 2, 3]
	Allium clathratum Ledeb.	[3, 6, 7, 10, 11]
	Allium condensatum Turcz.	[5, 9]
	Allium eduardi Stearn	[2, 3, 4, 6-16]
	Allium flavidum Ledeb.	[1-4, 6, 7, 13, 14]
	Allium galanthum Kar. & Kir.	[7, 14]
	Allium hymenorrhizum Ledeb.	[7, 14]
	Allium karelinii Poljakov	[7, 14]
	Allium ledebourianum Schult. & Schult.f.	[7]
	Allium leucocephalum Turcz.	[1-4, 7-14, 16]
	Allium macrostemon Bunge	[8,9]
	Allium malyschevii N.Friesen	[1, 2, 3]
	Allium maximowiczii Regel	[2, 4, 5, 9]
	Allium microdictyon Prokh.	[1, 2, 3, 4]
	Allium monadelphum Turcz.	[1, 2, 3, 6, 7]
	Allium mongolicum Regel	[3, 4, 6–16]
	Allium neriniflorum G.Don	[4, 5, 9]
	Allium obliquum L.	[7] [6 7 10 14]
	Allium oliganthum Kar. & Kir.	[6, 7, 10, 14]
	Allium pallasii Murray	[14]

	Allium platyspathum Schrenk subsp. platyspathum	[3, 6, 7, 13, 14]
	Allium platyspathum subsp. amblyophyllum (Kar. & Kir.)	N.Friesen [7, 13, 14]
	Allium polyrhizum Turcz.	[1, 2, 3, 4, 7-16]
	Allium prostratum Trev.	[1–13]
SE	Allium pumilum Vved.	[6, 7, 14]
	Allium ramosum L.	[1–13]
	Allium rubens Schrad.	[6, 7, 14]
	Allium schischkinii Sobolevsk.	[3, 6, 7, 10, 11, 13]
	Allium schoenoprasum L.	[1–7, 10]
	Allium schrenkii Regel [= Allium bogdoicola Regel]	[3, 6, 7, 10, 13, 14]
	Allium senescens L.	[1–10, 13]
	Allium splendens Willd.	[1-5, 8, 9]
	Allium spurium G.Don	[1, 2, 4, 5, 9]
	Allium stellerianum Willd.	[1, 2, 3, 4]
	Allium strictum Schrad.	[1-10, 13, 14]
SE	Allium subangulatum Regel	[16]
	Allium subtilissimum Ledeb.	[3, 14]
	Allium tenuissimum L.	[1–5, 7–9, 11–15]
	Allium tuvinicum (N.Friesen) N.Friesen	
	[≡ <i>Allium stellerianum</i> subsp. <i>tuvinicum</i> N.Friesen]	[3, 6, 7, 10]
SE	Allium tytthocephalum Schult.f.	[4, 6, 7, 13]
SE	Allium ubsicola Regel	[6, 10, 14]
	Allium vodopjanovae N.Friesen	[3, 4, 6–8, 10–15]
	23. Apiaceae Lindl. (36 genera and 66 taxa)	
	Aegopodium alpestre Ledeb.	[1–5, 13]
	Angelica czernaevia (Fisch. & C.A.Mey.) Kitag.	[1-j, 15] $[5, 9]$
	Angelica dahurica (Hoffm.) Benth. & Hook.f. $[\equiv Callisa]$	
	Ingenea auminea (Homm.) Benth. & Hook.i. [– Camsa	[2, 3, 4, 5, 9]
	Angelica saxatilis Turcz. [≡ Physolophium saxatile (Turcz.)	
	Angelica sylvestris L.	[6,7]
	Anthriscus sylvestris (L.) Hoffm.	[1–10]
	Archangelica decurrens Ledeb. [≡ Angelica archangelica su	2 -
	(Ledeb.) Kuvaev]	[1-4, 6, 7, 14]
	Aulacospermum anomalum Ledeb.	[6, 7]
	Bupleurum aureum Fisch.	[0, 7]
	*	
	Bupleurum bicaule Helm [= Bupleurum pusillum Krylov] Bupleurum densiflorum Rupr. [= Bupleurum mongolicum V.]	
	Bupleurum krylovianum Schischk.	[3, 7]
	Bupleurum krylovianum Schischk. Bupleurum multinerve DC. [= Bupleurum longeinvolucra.	
	Dupicul um manimel ve DC. [= Dupicul um wngeinvolucia	[1–5, 7, 9, 11]
	Bupleurum scorzonerifolium Willd.	[1–6, 8, 9, 12, 13]
	Bupleurum sibiricum Vest	[2, 4, 8, 9]
	Dupuni uni sivii unii VCSC	$[2, \tau, 0, J]$

	Carum buriaticum Turcz.	[1-6, 8, 9]
	Carum carvi L.	[1-5, 7-10, 14]
	Cenolophium denudatum (Hornem.) Tutin	[3, 7, 10, 14]
	Cicuta virosa L.	[1–15]
	Cnidium dauricum (Jacq.) Turcz. [≡ Laserpitium dauricum	Jacq.] [2–10]
	Cnidium monnieri Cusson	[4, 9]
SE	Conioselinum longifolium Turcz.	[1, 2, 4, 7, 9, 10]
	Conioselinum tataricum Hoffm. [= Conioselinum vaginatur	m (Spreng.) Thell.]
		[1, 2, 3, 4]
	<i>Elwendia setacea</i> (Schrenk) Pimenov & Kljuykov [≡ <i>Bunii</i>	ım setaceum
	(Schrenk) H.Wolff, $\equiv Carum \ setaceum \ Schrenk$ ]	[6, 7]
SE	Ferula bungeana Kitag.	[5, 8–16]
	Ferula caspica M.Bieb.	[7, 14]
	Ferula dissecta Ledeb.	[3, 6, 7, 10, 14]
	Ferula dshaudshamyr Korovin [= Ferula dubjanskyi Korovi	n] [7, 14]
	Ferula ferulioides (Steud.) Korovin	[7]
	Ferula potaninii Korovin	[14]
	Ferula soongarica Pall. [= Ferula mongolica	
	(V.M.Vinogr. & Kamelin) V.M.Vinogr. & Kamelin]	[3, 7, 10, 14, 15]
SE	Ferulopsis hystrix (Bunge) Pimenov [≡ Peucedanum hystrix	
CE		[2-4, 6-11, 13, 15]
SE	Haloselinum falcaria (Turcz.) Pimenov [≡ Peucedanum fal	
		6–8, 10, 11, 13–16]
	Hansenia mongholica Turcz. [≡ Ligusticum mongholicum (7	
	Heracleum dissectum Ledeb.	[1, 2]
	Heracleum sibiricum L.	[1, 2, 3, 9, 13]
	Kadenia salina (Turcz.) Lavrova & V.N.Tikhom. [≡ Cnidi	
		[2, 3, 4, 8–11, 13]
	Kitagawia baicalensis (Redow.) Pimenov	-
	[≡ Peucedanum baicalense (Redow.) Koch]	[1–8, 10]
	Kitagawia terebinthacea (Fisch.) Pimenov	
	[≡ <i>Peucedanum terebinthaceum</i> (Fisch.) Ledeb.]	[2, 4, 5, 9]
SE	Lithosciadium kamelinii (V.M.Vinogr.) Pimenov	
	[≡ Cnidium kamelinii V.M.Vinogr.]	[7]
SE	Lithosciadium multicaule Turcz.	[1, 3, 4, 6, 7, 13]
	Neogaya simplex Meisn. [= Pachypleurum alpinum Ledeb.]	[10]
	Oenanthe aquatica (L.) Poir. [= Peucedanum salinum Pall.]	[1–4, 6–10, 13]
	Ostericum tenuifolium (Pall.) Y.C.Chu [= Pachypleurum al	pinum Ledeb.]
	- 71	[1-4, 6, 7, 13, 14]
	Paraligusticum discolor (Ledeb.) V.N.Tikhom.	[7]
SE	Peucedanum puberulum Turcz.	[2, 3, 6, 8, 13]
	2	1-4, 6, 7, 8, 11, 13]
		•

	Phlojodicarpus sibiricus Koso-Pol.	[1–4, 7, 8, 9, 13]
	Phlojodicarpus villosus Turcz.	[1, 2, 3, 6]
	Pimpinella thellungiana H.Wolff	[4, 5, 9]
	Pleurospermum uralense Hoffm.	[1–6, 8, 9]
	Prangos ledebourii Herrnst. & Heyn	[7, 14]
	Sajanella monstrosa (Willd.) Soják	[1, 2]
	Saposhnikovia divaricata (Turcz.) Schischk.	[2-6, 8, 9]
	Schulzia crinita (Pall.) Spreng.	[1, 2, 3, 4, 6, 7]
	Seseli abolinii (Korovin) Schischk. [= Libanotis abolinii (Koro	
	Ocsell hourill (1010viii) Ocinselik. [— Liounous hourill (1010	[7, 10, 11, 13]
	Seseli buchtormense W.D.J.Koch [≡ Libanotis buchtormensis (Fisc	
	Seseli condensatum Rchb.f. $[\equiv Libanotis condensata (L.) Fisch.]$	
	Seseli eriocarpum B.Fedtsch. [= Libanotis eriocarpa Schrenk]	
CE	Seseli glabratum Willd. [= Libanotis tenuifolia DC.]	[7]
SE	Seseli grubovii V.M.Vinogr. & Sanchir [≡ Libanotis grubovii	
	Sanchir) M.L.Sheh & M.F.Watson]	[7, 13, 14, 15]
	Seseli mucronatum (Schrenk) Pimenov & Sdobnina	[14]
	Seseli seseloides (Fisch. & C.A.Mey.) M.Hiroe	[1 7 0]
	[≡ <i>Libanotis seseloides</i> (Fisch. & C.A.Mey. ) Turcz.]	[1-7, 9]
	Sium suave Walter	[1-10, 14]
	Sphallerocarpus gracilis Koso-Pol.	[1-4, 6-13]
	Stenocoelium athamantoides Ledeb. [ $\equiv$ Seseli athamantoides (N	
		[6, 7]
	24. Apocynaceae Juss. (3 genera and 10 taxa)	
	Apocynum pictum Schrenk [= Apocynum hendersonii Hook.f.]	[7, 11, 14, 15]
	Apocynum venetum L. $[\equiv Poacynum venetum (L.) Mavrodiev]$	[14]
	Cynanchum acutum subsp. sibiricum (Willd.) Rech.f.	[10–16]
	Cynanchum bungei Decne.	[9]
	Cynanchum chinense R.Br.	[9, 12, 15, 16]
SE	Cynanchum gobicum Grubov [= Vincetoxicum lanceolatum (C	Grubov) Grubov]
		[12–16]
	Cynanchum mongolicum Hemsl.	[16]
		4, 5, 8, 9, 12, 16]
	Vincetoxicum mukdenense Kitag. [= Cynanchum paniculatum	•
		[4, 5, 9]
	Vincetoxicum sibiricum (L.) Decne. [= Cynanchum thesioides	• • •
	vincevonicum sierricum (Li) Beene. [ Gymaneisum visesionies	[2–16]
	<b>25. Araceae</b> Juss. (2 genera and 4 species)	
		1 2 / 7 11 121
		1, 3, 4, 7–11, 13]
	Lemna trisulca L.	[1-5, 8-11]
	Lemna turionifera Landolt	[9, 11]

[5, 9]

[1-5, 8, 9]

[1-5, 8, 9, 12]

Spirodela polyrhiza (L.) Schleid.

	E- > - 1
<b>26. Asparagaceae</b> Juss. (5 genera and 19 species)	
Anemarrhena asphodeloides Bunge	[5, 9]
Asparagus brachyphyllus Turcz.	[9]
Asparagus burjaticus Peschkova	[4]
Asparagus dauricus Fisch.	[2–6, 8, 9, 11, 12]
Asparagus gobicus Ivanova	[7–16]
Asparagus neglectus Kar. & Kir.	[14]
Asparagus oligoclonos Maxim.	[5]
Asparagus pallasii Miscz.	[7, 10, 11]
Asparagus schoberioides Kunth	[5]
Asparagus tamariscinus Ivanova	[10, 14, 15, 16]
Asparagus trichophyllus Bunge	[10, 12, 14–16]
Convallaria keiskei Miq.	[2, 5]
Maianthemum bifolium (L.) F.W.Schmidt	[1, 2, 3, 4, 5]
Maianthemum dilatatum (Alph.Wood) A.Nelson & J.F.	Macbr. [3, 4, 5,
	9]
$Maianthemum \times intermedium Vorosch.$	[5]
Maianthemum trifolium (L.) Sloboda	[2]
Polygonatum humile Fisch.	[4, 5]
	Anemarrhena asphodeloides Bunge Asparagus brachyphyllus Turcz. Asparagus burjaticus Peschkova Asparagus dauricus Fisch. Asparagus gobicus Ivanova Asparagus neglectus Kar. & Kir. Asparagus oligoclonos Maxim. Asparagus pallasii Miscz. Asparagus schoberioides Kunth Asparagus tamariscinus Ivanova Asparagus trichophyllus Bunge Convallaria keiskei Miq. Maianthemum bifolium (L.) F.W.Schmidt Maianthemum dilatatum (Alph.Wood) A.Nelson & J.F.  Maianthemum × intermedium Vorosch. Maianthemum trifolium (L.) Sloboda

# **27. Asphodelaceae** Juss. [including Xantorrhoeaceae Dumort.] (1 genus and 2 taxa) Hemerocallis lilioasphodelus L. var. lillioasphodelus [4, 5, 9] Hemerocallis lilioasphodelus var. minor (Mill.) M.N.Tamura [≡ Hemerocallis minor Mill.]

# 28. Asteraceae Bercht. & J.Presl (85 genera and 456 taxa)

Polygonatum odoratum (Mill.) Druce

Polygonatum sibiricum Redouté

Note: Some classifications of some genera of Asteraceae have changed after extnesive molecular investigations. For example, species of *Scorzonera* L. were split into several genera, and three of them are present in Mongolia: *Lipschitzia* Zaika, Sukhor. & N.Kilian, *Takhtajaniantha* Nazarova, and *Scorzonera* L. s.str. by Zaika et al. (2020). The taxonomic status of *Scorzonera curvata*, *S. grubovii*, and *S. sinensis* is not resolved yet.

Achillea acuminata Sch.Bip.	[2, 4, 5, 9]
Achillea alpina L.	[1–6, 8–10]
Achillea asiatica Serg.	[1-10, 14]
Achillea impatiens L.	[2, 3, 4]
Achillea ledebourii Heimerl	[3, 7, 8]
Achillea millefolium L.	[1, 2, 3, 4, 7]
Achillea ptarmicoides Maxim.	[2, 4, 8, 9, 10]

	Achillea sergievskiana Shaulo & Shmakov	[7]
SE	<i>Ajania achilleoides</i> Poljakov	[3, 6–8, 10–13, 15, 16]
	Ajania fruticulosa (Ledeb.) Poljakov	[3, 4, 6–16]
E	<i>Ajania grubovii</i> Muldashev [≡ <i>Chrysanthemum grubov</i>	ii (Muldashev)
	H.Ohashi & Yonek.]	[7, 14]
	Ajania trifida (Turcz.) Muldashev [≡ Hippolytia trifida	a (Turcz.) Poljakov]
		[3, 6–9, 11–13, 16]
	Allardia tridactylites Sch.Bip. [≡ Waldheimia tridactyli	- · · · · · · · · · · · · · · · · · · ·
		[1, 3, 6, 7, 13]
	Ancathia igniaria DC.	[3, 7, 10, 14, 15]
	Antennaria dioica (L.) Gaertn.	[1, 2, 3, 4, 7]
	Arctium tomentosum Mill.	[4]
	Arctogeron gramineum (L.) DC.	[1-5, 7, 8, 9]
	Arnica angustifolia subsp. iljinii (Maguire) I.K.Ferguse	on [7]
	Artemisia adamsii Besser	[2, 3, 4, 6-13]
SE	Artemisia aksaiensis Y.R.Ling	[2, 6, 8, 12–14, 16]
	Artemisia amoena Poljakov	[7, 12]
	Artemisia anethifolia Weber	[2, 3, 4, 7-16]
	Artemisia anethoides Mattf.	[8–16]
	Artemisia annua L.	[2-4, 7-10, 12-16]
	Artemisia argyi H.Lév. & Vaniot	[2, 4, 5, 7–9, 12, 13]
	Artemisia argyrophylla Ledeb.	[1, 3, 6, 7, 13, 15]
E	Artemisia assurgens Filatova [≡ Seriphidium assurgens (	Filatova)
	K.Bremer & Humphries]	[7, 11, 13–15]
	Artemisia aurata Kom.	[2-5, 8, 9, 13]
	Artemisia bargusinensis Spreng.	[1, 2, 3, 4, 5]
SE	Artemisia blepharolepis Bunge	[11, 12, 13, 16]
	Artemisia borealis Pall.	[1-4, 6, 7, 10, 13]
	Artemisia borotalensis Poljakov	
	[≡ Seriphidium borotalense (Poljakov) Ling & Y.R	.Ling] [7, 14]
SE	Artemisia brachyloba Franch.	[4, 8, 9]
	Artemisia brachyphylla Kitam.	[5]
	Artemisia caespitosa Ledeb.	[3, 4, 6-16]
	Artemisia capillaris Thunb.	[2, 3, 4, 5, 8, 9]
	Artemisia compacta Fisch.	[3, 6-8, 10-12, 14]
	Artemisia dahurica (Turcz.) Poljakov	[4]
E	Artemisia davazamczii Darijma & Kamelin	[7, 10, 13, 15]
	Artemisia demissa Krasch.	[3, 7-16]
	Artemisia depauperata Krasch.	[1–4, 6–8, 10, 11, 13,
		14]
	Artemisia desertorum Spreng. subsp. desertorum	[2, 4, 5, 9, 13]
E	Artemisia desertorum subsp. pseudojaponica Darijma 8	Kamelin [5]
SE	Artemisia disjuncta Krasch.	[7, 13]

SE	Artemisia dolosa Krasch. [1–9, 11, 13]
SE	Artemisia dracunculus var. changaica (Krasch.) Y.R.Ling [≡ Artemisia changaica
	Krasch.] [1, 3, 7, 8, 10, 11, 13]
	Artemisia dracunculus L. var. dracunculus [1–15]
	Artemisia eriopoda Bunge [16]
	Artemisia feddei subsp. arschantinica (Darijma)
	Gubanov & Kamelin [ $\equiv$ Artemisia arschantinica Darijma] [16]
	Artemisia feddei H.Lév. & Vaniot subsp. feddei [5, 9]
	Artemisia freyniana (Pamp.) Krasch. [4–6, 8–10, 12, 13]
	Artemisia frigida Willd. [1–16]
SE	Artemisia giraldii Pamp. [4]
	Artemisia glauca Pall. [1–8, 10, 14]
SE	Artemisia globosa Krasch. [6,–8, 10, 12–14]
SE	Artemisia globosoides Ling & Y.R.Ling [9, 12]
	Artemisia gmelinii Web. var. gmelinii [2–13]
	Artemisia gmelinii var. messerschmidiana (Besser) Poljakov [2–5, 8, 9, 12,
	13]
	Artemisia gracilescens Krasch. & Iljin [7, 14, 15]
	Artemisia halodendron Turcz. [4, 5, 8, 9, 12, 16]
	Artemisia heptapotamica Poljakov
	[≡ Seriphidium heptapotamicum (Poljakov) Ling & Y.R.Ling] [7, 14]
	Artemisia implicata T.G.Leonova [16]
	Artemisia integrifolia L. [1–5, 8, 9, 13]
	Artemisia klementzae Krasch. [= Artemisia xylorhiza Krasch.] [3, 4, 7–13, 16]
	Artemisia laciniata Willd. [1–5, 7–10, 12, 14]
SE	Artemisia lagocephala Fisch. var. lithophila (Turcz.) Y.R.Ling [1]
	Artemisia latifolia Ledeb. [2, 4, 5, 9]
	Artemisia macilenta (Maxim.) Krasch. [2, 3, 4, 5, 9]
	Artemisia macrantha Ledeb. [1, 2, 3, 7]
	Artemisia macrocephala Jacquem. [1–16]
	<i>Artemisia manshurica</i> (Kom.) Kom. [2, 3, 4, 5, 8, 9]
	Artemisia marschalliana Spreng. [7]
	Artemisia maximovicziana Krasch. [4, 5, 9]
	Artemisia medioxima Krasch. [1, 2, 3, 4, 9]
	Artemisia mongolica (Fisch.) Nakai [ $\equiv$ Artemisia vulgaris var. mongolica Fisch.]
	[1–15]
	Artemisia mongolorum subsp. gobicum Krasch.
	$[\equiv Artemisia\ gobica\ (Krasch.)\ Grubov]$ [3, 4, 6–16]
	Artemisia mongolorum Krasch. subsp. mongolorum
	[≡ Seriphidium mongolorum (Krasch.) Ling & Y.R.Ling] [3, 4, 6–16]
	Artemisia nitrosa Weber [3, 4, 8, 9]
	Artemisia obtusiloba subsp. altaiensis (Krasch.) Krasnob. [≡ Artemisia altaiensis
	Krasch.] [3, 6, 7]

	Artemisia obtusiloba Ledeb. subsp. obtusiloba	[3, 6, 7, 10, 13, 14]
	Artemisia obtusiloba var. glabra Ledeb. [= Artemisia glab	
SE	Artemisia ordosica Krasch.	[3, 6, 10] [7, 9, 10, 12–16]
SE SE		[4, 5, 8, 9]
SE	Artemisia oxycephala Kitag.	[4, 5, 6, 7]
	Artemisia palustris L.	[3, 6, 7, 10–13]
	Artemisia pamirica C.Winkl.	[1-4, 6-9, 13, 14]
	Artemisia phaeolepis Krasch.	
	Artemisia pubescens Ledeb. [= Artemisia commutata Bess	
	Antamicia truca ambiga I adah	[1-4, 6-11, 13, 14] [1-4, 6-8, 10-14]
	Artemisia pycnorrhiza Ledeb.	
	Artemisia rubripes Nakai	[2, 3, 4, 5, 8, 9]
	Artemisia rupestris L.	[1–4, 6–8, 10, 14]
	Artemisia rutifolia var. altaica (Krylov) Krasch.	[7]
	Artemisia sacrorum var. messerschmidtiana (Besser) Y.R.I	U
	4	[2–5, 8, 9, 12, 13]
	Artemisia saissanica (Krasch.) Filatova	[7, 10, 14]
	Artemisia santolinifolia Turcz.	[2 2 ( 15]
	[= Artemisia santolinifolia subsp. stepposa Darijma]	[2, 3, 6–15]
	Artemisia schischkinii Krasch.	[6, 7, 10, 14]
	Artemisia schrenkiana Ledeb.	[3, 6, 10, 14]
	Artemisia scoparia Waldst. & Kit.	[2-12]
	Artemisia selengensis Turcz.	[3, 4, 5, 9]
	Artemisia sericea Weber	[1, 2, 3, 4, 5, 8]
C.F.	Artemisia sieversiana Ehrh.	[1–16]
SE	Artemisia sphaerocephala Krasch.	[3, 10–16]
OF.	Artemisia stolonifera (Maxim.) Kom.	[3, 7, 10, 13–16]
SE	Artemisia subchrysolepis Filatova [≡ Seriphidium su	
	K.Bremer & Humphries]	[7, 14]
	Artemisia subdigitata Mattf. [≡ Artemisia dubia var. sube	
	Y.R.Ling]	[3, 4, 7, 10, 12–16]
	Artemisia sublessingiana Krasch. [= Seriphidium gorjaevi	i (Poljak.) Y.R.Ling] [14]
	Artemisia subulata Nakai	[1, 5, 9]
	Artemisia succulenta Ledeb.	[7]
	Artemisia sylvatica Maxim.	[4, 5, 9, 10, 15]
	Artemisia tanacetifolia L.	[1–10, 14]
	Artemisia terrae-albae Krasch.	[7, 14, 15]
	Artemisia tomentella Trautv.	[1, 3, 6, 10–12, 14]
	Artemisia tournefortiana Rchb.	[7, 9, 12, 14]
SE	Artemisia transbaicalensis T.G.Leonova	[1,3]
	Artemisia umbrosa (Besser) Turcz.	[4, 5, 9]
	Artemisia vestita Wall.	[13]

	Artemisia viridis Willd.	[6, 7, 14]
	Artemisia vulgaris subsp. vulgaris L.	[2, 3]
E	Artemisia vulgaris subsp. inundata Darijma [= Arte	rmisia superba Pamp.]
		[1-4, 7, 9, 10, 13, 14]
	Artemisia wudanica Liou & W.Wang	[8, 9, 12]
SE	Artemisia xanthochloa Krasch.	[3–16]
	Artemisia xerophytica Krasch.	[6, 7, 8, 10–16]
	Askellia flexuosa (Ledeb.) W.A.Weber	[1, 3, 5–11, 13–16]
	Askellia pygmaea (Ledeb.) Sennikov	[1, 3, 6, 7]
	Aster alpinus L.	[1-10, 13]
	Aster hispidus Thunb.	[2–6, 8–11, 13, 15]
	Aster lingii G.J.Zhang & T.G.Gao [= Rhinactinidia	limoniifolia Novopokr.]
		[7]
	Aster maackii Regel	[5]
E	Aster sanczirii Kamelin & Gubanov	[5]
	Aster tataricus L.f.	[2, 3, 4, 5, 9]
SE	Asterothamnus alyssoides (Turcz.) Novopokr. [= Aste	er alyssoides Turcz.]
		[8, 12]
SE	Asterothamnus centraliasiaticus var. potaninii (Novo	
	[≡ Asterothamnus potaninii Novopokr.]	[7, 8, 9, 11–16]
SE	Asterothamnus heteropappoides Novopokr.	[6, 7, 10, 14]
	Asterothamnus molliusculus Novopokr.	[12, 15]
	Asterothamnus poliifolius Novopokr.	[3, 6, 7, 10, 11, 13–
	1 3 1	15]
	Bidens cernua L.	[3, 4, 6, 7, 9–11]
	Bidens parviflora Willd.	[3, 4, 6, 8–10, 13]
	Bidens radiata Thuill.	[3, 4, 6-10]
	Bidens tripartita L.	[1-4, 7, 8-10, 14]
SE	Brachanthemum gobicum Krasch.	[12, 13, 16]
SE	Brachanthemum mongolicum Krasch.	[12, 14]
E	Brachanthemum mongolorum Grubov	[9]
	Cancrinia discoidea (Ledeb.) Poljakov	[7, 10–16]
SE	Cancrinia krasnoborovii Khanm.	[10]
	Carduus crispus L.	[2-7, 9]
	Carduus nutans L.	[1,7]
	Centaurea adpressa Ledeb.	[6]
	Centaurea glastifolia subsp. intermedia (Boiss.) L.M	
	[= Centaurea chartolepis Greuter]	[6, 7]
	Centaurea pulchella Ledeb. [= Hyalea pulchella (Led	
	Chondrilla lejosperma Kar. & Kir.	[6, 7, 10, 14]
E	Chrysanthemum chalchingolicum Grubov	[5, 9]
	Chrysanthemum mongolicum Ling [ $\equiv$ Chrysanthemu	
	cum (Ling) Gubanov]	[1, 2, 3]
	(	[-, -, 5]

	Chrysanthemum naktongense Nakai	[9]
SE	Chrysanthemum sinuatum Ledeb. [ Tanacetum sinuatum Sch. E	Bip.] [6, 7]
	Chrysanthemum trilobatum (Poljakov) H.Ohashi & Yonek.	•
	[≡ <i>Ajania trilobata</i> Poljakov]	[12, 13]
	Chrysanthemum zawadzkii Herbich	[1-5, 8, 9]
	Cicerbita azurea (Ledeb.) Beaverd	[3, 7, 10]
	Cirsium arvense (L.) Scop. [≡ Serratula arvensis L.] [2–4,	7, 9–11, 13–15]
	Cirsium esculentum C.A.Mey.	[1-4, 6-11, 14]
	Cirsium glabrifolium O.Fedtsch. & B.Fedtsch.	[7]
	Cirsium helenioides (L.) Hill [= Carduus helenioides L.]	[2]
	Cirsium pendulum Fisch.	[2, 4, 5, 9]
	Cirsium serratuloides Hill	[1, 2, 3]
	Cirsium setosum (Willd.) M.Bieb. [≡ Serratula setosa Willd.] [3,	4, 7–11, 14, 15]
	Cirsium sieversii (Fisch. & C.A.Mey.) Petr.	
	[= Cirsium polyacanthum Kar. & Kir.]	[7]
	Cirsium vlassovianum Fisch.	[2, 5, 9]
	Cousinia affinis Schrenk	[14]
	Crepidiastrum akagii (Kitag.) J.W.Zhang & N.Kilian	
		, 3, 6–8, 10–15]
	Crepidiastrum sonchifolium (Bunge) Pak & Kawano	[5]
	Crepidiastrum tenuifolium (Willd.) Sennikov	2 4
	$\equiv$ Crepis tenuifolia Willd. $\equiv$ Youngia tenuifolia (Willd.)	
	Babc. & Stebbins]	[1–11, 13, 14]
	Crepis bungei Ledeb.	[1-4, 6-9, 11]
		[1, 2, 3, 6, 7, 10]
	Crepis crocea (Lam.) Babc. var. crocea	[2, 3, 4, 6–13]
SE	Crepis crocea var. czuensis (Serg.) Tzvelev [≡ Crepis czuensis Ser	g.] [6, 7]
E	Crepis lomonosovae Tzvelev	[3, 13]
	Crepis lyrata (L.) Froel.	[1, 7]
		[3, 7, 10, 13, 14]
	Crepis polytricha Turcz.	[1, 3, 4, 6, 7]
	Crepis praemorsa (L.) Tausch [≡ Hieracium praemorsum L.]	[4, 10]
	Crepis sibirica L.	[2–5, 7, 8, 11]
	Crepis tectorum L.	[2, 4, 7, 10, 14]
	Doronicum altaicum Pall.	[1]
	Doronicum oblongifolium DC.	[7, 14]
	Doronicum turkestanicum Cavill.	[3, 7, 14]
	Echinops davuricus Fisch. [= Echinops latifolius Tausch]	[1-5, 8, 9]
	Echinops gmelinii Turcz.	[3, 7–16]
	Echinops humilis M.Bieb.	[3, 7, 13–15]
	Echinops integrifolius Kar. & Kir.	[6, 7, 14]
	Echinops nanus Bunge	[7, 14]
	Echinops ritro L.	[7, 14]

	Erigeron acris L.	[1–7, 9, 10, 13]
	Erigeron altaicus Popov	[7, 14]
SE	Erigeron baicalensis Botsch.	[1]
	Erigeron eriocalyx (Ledeb.) Vierh.	[1-3, 6, 7, 13]
	Erigeron krylovii Serg.	[3, 7]
	Erigeron lonchophyllus Hook.	[1–7, 9, 10, 13]
	Erigeron oreades Fisch. & C.A.Mey.	[1, 3, 7, 13]
	Erigeron petiolaris Vierh.	[3, 7]
	Erigeron politus Fr.	[1-4, 6, 7, 13]
	Erigeron pseudoeriocephalus Popov	[3]
	Filago arvensis L.	[7, 8, 10, 14]
	Filifolium sibiricum (L.) Kitam. [= Tanacetum sibiricum L.]	[1–5, 8, 9]
	Galatella altaica Tzvelev	[7, 14]
	Galatella angustissima (Tausch) Novopokr.	[1]
	Galatella dahurica DC. [= Galatella macrosciadia Gand.	
	= Galatella songorica Novopokr.]	[1–7, 9, 10]
	Galatella hauptii Lindl.	[7]
	Gnaphalium uliginosum L. [= Gnaphalium baicalense Kirp. 8	
		[2–4, 7, 9, 10, 14]
	Helichrysum arenarium Moench	[2 1, 7, 7, 7, 10, 11]
	Heteropappus altaicus Novopokrov. [≡ Aster altaicus Willd.]	
	Tieveropuppus uuureus Trovopoinoss [ Tiever uuureus vi indis	12–16]
	Heteropappus biennis (Ledeb.) Tamamsch.	[1-5, 8, 9]
SE	Heteropappus medius (Krylov) Tamamsch.	[3, 4, 5, 8, 9]
SE	Hieracium czadanense Tupitz.	[1, 10]
	Hieracium korshinskyi Zahn	[2, 4]
	Hieracium narymense Schischk. & Serg.	[2, 4]
	Hieracium robustum Fr.	[8, 9]
	Hieracium sershukense Üksip	[7]
	Hieracium subramosum Lonnr.	[2, 4]
	Hieracium umbellatum L.	[1–5, 7, 8, 9, 10]
	Hieracium virosum Pall.	[2, 3, 4, 5, 7, 9]
	Hololeion maximowiczii Kitam.	[9]
	Hypochaeris maculata L. [≡ Trommsdorffia maculata (L.) Ber	
	Inula japonica Thunb.	[2]
	Inula linariifolia Turcz.	[5, 8, 10, 11]
	Inula salsoloides Ostenf. $[\equiv Limbarda \ salsoloides \ Ikonn.]$ [8,	
	Ixeris chinensis (Thunb.) Kitagawa subsp. chinensis s.l.	,,,
	[= Ixeridium graminifolium (Ledeb.) Tzvelev,	
		[2–5, 7–9, 12, 14]
	Jacobaea ambracea (Turcz.) B.Nord. [= Senecio ambraceus Tu	
	jacovana amoracia (14162.) D.1 1014. [- Ochiclo amoracias 10	6–10, 14]
	Jacobaea cannabifolia (Less.) E.Wiebe [≡ Senecio cannabifolius	
	-	

	Jacobaea erucifolia subsp. argunensis (Turcz.) Veldkamp	
	[≡ Senecio argunensis Turcz.]	[5, 9]
	Jacobaea erucifolia (L.) G.Gaertn., B.Mey. & Scherb. subsp. o	
	•	[2-4, 6, 7, 9, 10]
	Jacobaea vulgaris Gaertn. [≡ Senecio jacobaea L.]	[3, 4, 7–10, 14]
	Jurinea chaetocarpa (Ledeb.) Ledeb.	[7, 14]
	Jurinea margalensis Iljin	[7, 14]
SE	Jurinea mongolica Maxim. [= Jurinea potaninii Ilijn]	[10–14]
	Jurinea multiflora B.Fedtsch.	[7, 14]
	Karelinia caspia Less.	[14, 15, 16]
	Kaschgaria komarovii (Krasch. & Rubtzov) Poljakov	
	[≡ Tanacetum komarovii Krasch. & Rubtzov]	[7, 14, 15]
	Klasea cardunculus (Pall.) Holub [≡ Serratula cardunculus (Pa	ll.) Schischk.]
		[2, 3, 4, 5, 7]
	Klasea centauroides (L.) Cass. $[\equiv Serratula\ centauroides\ L.]$	[1-5, 7-13]
	Klasea marginata (Tausch) Kitag. [≡ Serratula marginata Taus	sch]
	[1-	-4, 7–10, 13, 14]
	Klasea sogdiana (Bunge) L.Martins [≡ Serratula sogdiana Bun	ge,
	Serratula alatavica C.A.Mey.]	[6]
	Lactuca serriola L. [= Lactuca sativa subsp. serriola (L.) Frieter	ma]
		[7, 10, 14, 15]
	Lactuca sibirica Benth.	[2-6, 8, 9, 11]
	Lactuca tatarica C.A.Mey.	[3, 4, 6-16]
	Lactuca undulata Ledeb.	[7, 14]
	Leibnitzia anandria (L.) Turcz.	[2, 3, 4, 5, 9]
	Leontopodium campestre HandMazz. [1–3	, 6–9, 11, 13, 14]
	Leontopodium conglobatum HandMazz.	[1-9, 13]
	Leontopodium leontopodioides (Willd.) Beauverd	[1-5, 8, 9, 16]
	Leontopodium nanum (Hook.f. & Thomson) HandMazz.	[16]
	Leontopodium ochroleucum Beauverd	[1-3, 6, 7, 13]
	Leontopodium palibinianum Beauverd	[2, 4, 5]
	Leuzea carthamoides DC. [= Rhaponticum carthamoides (Will	·
	Leuzea repens (L.) D.J.N.Hind, $[\equiv Rhaponticum \ repens$ (L.) H	
	$\equiv$ Acroptilon repens (L.) DC.]	[6, 7, 10–16]
	Leuzea uniflora (L.) Holub [= Rhaponticum uniflorum (L.) D	
	Ligularia altaica DC.	[6, 7]
	Ligularia fischerii (Ledeb.) Turcz.	[2, 3, 4, 5, 9]
	Ligularia glauca (L.) O.Hoffm.	[7]
	Ligularia hodgsonii Hook.f.	[5, 9]
	Ligularia mongolica DC.	[5, 9]
	Ligularia przewalskii Diels	[9, 12]
	Ligularia sagitta (Maxim.) Mattf. [≡ Senecio sagitta Maxim.]	[4, 5, 9]
	Ligularia sibirica Cass.	[1, 2, 3, 4, 5, 9]

	Lipschitzia divaricata (Turcz.) Zaika, Sukhor. & N.Kilian	
	[≡ Scorzonera divaricata Turcz.]	[6–13, 15, 16]
	Matricaria chamomilla L. [= Matricaria recutita L.]	[2]
	Neopallasia pectinata (Pall.) Poljakov	[1-4, 6-16]
SE	Olgaea leucophylla (Turcz.) Iljin	[8, 9, 11–13]
SE	Olgaea lomonossowii (Trautv.) Iljin	[9]
	Omalotheca supina (L.) DC. [= Gnaphalium supinum L.]	[2, 7]
	Packera cymbalaria (Pursh) W.A.Weber & Á.Löve	
	[≡ <i>Senecio cymbalaria</i> Pursh]	[1, 3, 7]
	Parasenecio hastatus (L.) H.Koyama [≡ Cacalia hastata L.]	[1, 2, 3, 4, 5, 9]
	Pentanema asperum (Poir.) G.V.Boiko & Korniy. [≡ Inula a	spera Poir.]
		[2, 3, 9]
	Pentanema britannica (L.) D.Gut.Larr. [≡ Inula britannica ]	L.] [1–11, 13, 14]
	Pentanema salicinum (L.) D.Gut.Larr. [≡ Inula salicina L.]	[2, 3, 4, 5, 9]
	Petasites frigidus (L.) Fr.	[1]
	Petasites radiatus (J.F.Gmel.) Toman	[1]
	Petasites rubellus (J.F.Gmel.) Toman	[1,3]
	Phalacrachena calva (Ledeb.) Iljin	[10]
	Picris davurica Fisch.	[1, 3, 4, 8, 9]
	Picris hieracioides L.	[2, 3, 4, 5]
	Picris japonica Thunb.	[2, 3, 4, 5, 9]
	Pilosella dublitzkii (B.Fedtsch. & Nevski) Sennikov	
	[≡ <i>Hieracium dublitzkii</i> B.Fedtsch. & Nevski]	[7]
	Pilosella echioides (L.) F.W.Schultz & Sch.Bip. [≡ Hieracium	ı echioides L.]
		[2, 4]
	Pulicaria vulgaris Gaertn.	[10]
	Rhinactinidia eremophila (Bunge) Novopokr. [= Rhinactinia	dia eremophila
	subsp. <i>grubovii</i> Botsch.] [3, 6,	7, 10, 11, 13, 14]
	Richteria pyrethroides Kar. & Kir. [≡ Pyrethrum pyrethroides	
	B.Fedtsch.] Saussurea acuminata Turcz.	[7]
SE	Saussurea alaschanica Maxim.	[2, 4, 5]
SE	Saussurea alata DC.	[6, 10]
		[4, 6, 10]
	Saussurea alpina (L.) DC.	[1–3, 6, 7, 13]
CE	Saussurea amara (L.) DC.	[1–5, 7–12, 14]
SE	Saussurea arctecapitulata Lipsch.	[1,3]
CE	Saussurea baicalensis B.L.Rob.	[1, 2, 3, 7]
SE SE	Saussurea bogedaensis Yu J. Wang & J. Chen	[14]
SE SE	Saussurea catharinae Lipsch.	[15]
SE	Saussurea ceterachifolia Lipsch.	[3, 6, 7]
	Saussurea congesta Turcz.	[1]
	Saussurea controversa DC.	[1, 2, 3, 5]
	Saussurea coronata Schrenk [= Saussurea dshungarica Iljin]	[7]

	Saussurea daurica Adams	[3, 6–16]
SE	Saussurea dorogostaiskii Palib.	[1, 2]
	Saussurea elata Ledeb.	[7]
	Saussurea elegans Ledeb. [= Saussurea amoena Kar. 8	x Kir.] [3, 6, 7]
SE	Saussurea elongata DC.	[1, 2, 4]
	Saussurea foliosa Ledeb.	[6, 7]
	Saussurea glacialis Herder	[1, 3, 6, 7, 13, 14]
SE	Saussurea grubovii Lipsch.	[7, 14, 15]
E	Saussurea gubanovii Kamelin	[15]
	Saussurea involucrata (Kar. & Kit.) Sch.Bip.	[1–3, 6, 7, 13, 14]
	Saussurea japonica (Thunb.) DC.	[9]
	Saussurea klementzii Lipsch.	[7]
SE	Saussurea krasnoborovii S.V.Smirn.	[1]
	Saussurea krylovii Schischk. & Serg.	[7]
	Saussurea laciniata Ledeb.	[3, 4, 6–8, 10, 11, 13–16]
	Saussurea latifolia Ledeb.	[3, 7]
	Saussurea leucophylla Schrenk	[1, 3, 6, 7, 13]
SE	Saussurea lipschitzii Filatova	[7, 13]
	Saussurea mongolica (Franch.) Franch.	[5]
	Saussurea neoserrata Nakai	[2, 5]
	Saussurea odontolepis Sch.Bip.	[5]
E	Saussurea odorata E.Pjak	[7]
	Saussurea orgaadayi Khanm. & Krasnob.	[3, 7]
	Saussurea parviflora (Poir.) DC.	[1–7, 9]
SE	Saussurea popovii Lipsch.	[14]
	Saussurea pricei N.D.Simpson	[3, 6–8, 10, 11, 13, 14]
	Saussurea pseudoalpina N.D.Simpson	[1–3, 6, 7, 13, 14]
	Saussurea pseudosalsa Lipsch.	[15, 16]
	Saussurea pulchella Fisch.	[5, 7, 8, 9]
SE	Saussurea purpurata (Fisch.) Lipsch.	[2, 4]
E	Saussurea ramosa Lipsch.	[3, 10, 11, 15]
	Saussurea recurvata (Maxim.) Lipsch.	[2, 5]
	Saussurea runcinata DC.	[2–4, 7, 8, 10]
E	Saussurea saichanensis Kom.	[1-3, 6, 7, 13, 14]
	Saussurea salicifolia DC.	[2–9]
	Saussurea salsa Spreng.	[3, 5–11, 14, 16]
	Saussurea schanginiana (Wydler) Fisch.	[1-3, 6, 7, 13]
SE	Saussurea squarrosa Turcz.	[1]
	Saussurea stubendorffii Herder	[1, 3]
	Saussurea subacaulis (Ledeb.) Serg.	[1, 3, 6, 7, 13]
SE	Saussurea sukaczevii Lipsch.	[1, 2, 3]
	Saussurea ussuriensis Maxim.	[5]
	Scorzonera albicaulis Bunge	[1, 2, 4, 5, 9]

	Scorzonera curvata (Popl.) Lipsch.	[3, 7, 8, 9, 13]
E	Scorzonera grubovii Lipsch.	[7, 14]
	Scorzonera parviflora Jacq.	[14]
	Scorzonera radiata Fisch.	[1-10, 13, 14]
	Scorzonera sinensis (Lipsch. & Krasch.) Nakai	[9]
	Senecio dubitabilis C.Jeffrey & Y.L.Chen	
	[≡ Senecio dubius Ledeb. nom. illegit. non Beck]	[2, 3, 7, 8, 10–15]
E	Senecio kenteicus Grubov	[2]
	Senecio nemorensis L.	[1, 2, 3]
	Senecio subdentatus Ledeb.	[7, 10, 14, 15]
	Senecio vulgaris L.	[1-4, 7, 8, 10]
	Serratula coronata L.	[5, 9]
	Serratula kirghisorum Iljin	[7]
	Solidago dahurica (Kitag.) Kitag.	[1-5, 7, 9]
	Solidago virgaurea L.	[7]
	Sonchella dentata (Ledeb.) Sennikov [≡ Sonchus dentatus	Ledeb.] [10, 14, 15]
	Sonchella stenoma (Turcz.) Sennikov [≡ Crepis stenoma Ti	urcz.] [8–15]
	Sonchus arvensis L.	[2–5, 7–11, 13, 14]
	Sonchus brachyotus DC.	[8–10, 13, 14]
	Sonchus uliginosus M.Bieb.	[4, 5, 8, 9, 10]
	Stilpnolepis intricata (Franch.) C.Shih	[3, 4, 7, 9-15]
	Symphyotrichum ciliatum (Ledeb.) G.L.Nesom	[3, 4, 9, 10]
	Synurus deltoides (Aiton) Nakai	[4, 5]
	Takhtajaniantha austriaca (Willd.) Zaika, Sukhor. & N.	Kilian [≡ <i>Scorzonera</i>
	austriaca Willd.]	[2–10, 12–14]
	Takhtajaniantha capito (Maxim.) Zaika, Sukhor. & N.K	ilian [≡ <i>Scorzonera</i>
	capito Maxim.]	[8, 11–16]
	Takhtajaniantha ikonnikovii (Krasch. & Lipsch.) Zaika,	Sukhor. & N.Kilian
	[≡ Scorzonera ikonnikovii Lipsch. & Krasch.]	[3, 6–15]
	Takhtajaniantha mongolica (Maxim.) Zaika, Sukhor. & I	N.Kilian [≡ <i>Scorzon-</i>
	era mongolica Maxim.]	[10–16]
	Takhtajaniantha pseudodivaricata (Lipsch.) Zaika, Sukho	or. & N.Kilian [≡
	Scorzonera pseudodivaricata Lipsch]	[3, 6, 7, 9, 10–16]
	Takhtajaniantha pusilla (Pall.) Nazarova [≡ Scorzonera pi	usilla Pall.] [8, 14]
	Takhtajaniantha subacaulis (Regel) Zaika, Sukhor. & N.	Kilian [= Scorzonera
	subacaulis (Regel) Lipsch.]	[6]
	Tanacetum alatavicum Herder [≡ Pyrethrum alatavicum €	O.Fedtsch. &
	B.Fedtsch.]	[7]
E	Tanacetum changaicum (Krasch.) K.Bremer & Humphri	es [ $\equiv Pyrethrum$
	changaicum Krasch.]	[3, 4, 7, 10]
	Tanacetum crassipes (Stschegl.) Tzvelev	[7]
	Tanacetum krylovianum (Krasch.) K.Bremer & Humphr	ries
	[≡ <i>Pyrethrum krylovianum</i> Krasch.]	[7]

	Tanacetum lanuginosum Sch. [≡ Pyrethrum lanuginosum	
	(Sch.Bip. & Herder) Tzvelev]	[1, 6, 7, 13]
SE	Tanacetum pulchellum Sch. [≡ Pyrethrum pulchellum Turcz	
	Tanacetum pulchrum Sch. [= Pyrethrum pulchrum Ledeb.]	[3, 6, 7, 13]
	Tanacetum tanacetoides (DC.) Tzvelev	[2, 3, 6, 7]
	Tanacetum vulgare L. [= Tanacetum boreale Fisch. & DC.]	
	Taraxacum armeriifolium Soest	[3–5, 7, 9–14, 16]
	Taraxacum asiaticum Dahlst.	[4, 7, 8, 13]
	Taraxacum atrans Schischk.	[7, 13]
	Taraxacum bessarabicum (Hornem.) HandMazz.	[2-4, 7-10]
	Taraxacum bicorne Dahlst.	[1, 2, 3, 7, 9-12]
SE	Taraxacum bornuurense R.Doll	[3, 4, 6, 7]
	Taraxacum brevirostre HandMazz.	[3, 7, 13]
	Taraxacum ceratophorum (Ledeb.) DC. [= Taraxacum alta	icum Schischk.]
		[1–7, 9, 13, 14]
	Taraxacum collinum DC.	[3, 4, 6–10, 14]
	Taraxacum dealbatum HandMazz.	[1-4, 6-15]
	Taraxacum dissectum Ledeb.	[1-4, 6-10, 12, 13]
	Taraxacum eriopodum DC.	[6, 7, 13, 14]
	Taraxacum erythrospermum Andrz.	[3]
	Taraxacum glabrum DC.	[1–3, 6, 7, 14]
	Taraxacum glaucanthum Nakai	[3, 4, 8]
	Taraxacum goloskokovii Schischk.	[6, 7, 10, 13]
E	Taraxacum inimitabile Kirschner & Štěpánek	[13]
E	Taraxacum junatovii Tzvelev	[3, 7, 13, 14]
	Taraxacum kok-saghyz Rodin	[3, 7, 13]
SE	Taraxacum krasnoborovii Krasnikov	[7]
SE	Taraxacum krylovii Krasnikov & Khanm.	[7]
	Taraxacum leucanthum Ledeb.	[1-4, 6-8, 10-15]
	Taraxacum linczevskyi Schischk.	[7]
SE	Taraxacum longicorne Dahlst.	[1, 2, 5-10]
	Taraxacum luridum G.E.Haglund	[6, 7]
	Taraxacum lyratum (Ledeb.) DC.	[1, 3, 6, 7]
	Taraxacum macilentum Dahlst.	[1, 3, 6, 7]
	Taraxacum microspermum Schischk. [= Taraxacum compac	tum Schischk.]
		[1, 2]
	Taraxacum minutilobum Popov	[7]
	Taraxacum mongolicum HandMazz. [1	-4, 6, 7, 10, 11, 13]
	Taraxacum mongoliforme R.Doll [1	, 2, 4, 7–11, 13, 15]
	Taraxacum monochlamydeum HandMazz.	[3, 4, 7, 12–15]
	Taraxacum mujense Petrochenko	[1, 2]
	Taraxacum multisectum Kitag.	[9]
	Taraxacum officinale F.H.Wigg.	[1, 2, 3, 4]

	Taraxacum parvulum DC.	[14]
	Taraxacum pawlodarskum R.Doll [= Taraxacum ustamenum	R.Doll] [7]
	Taraxacum pingue Schischk.	[1, 3, 6, 7]
	Taraxacum pseudoatratum Orazova	[6]
SE	Taraxacum pseudonivale Malyschev	[1]
	Taraxacum puberulum G.E.Haglund	[14]
SE	Taraxacum sangilense Krasnob. & Khanm.	[1, 2, 3, 4, 6, 7]
	Taraxacum scariosum (Tausch) Kirschner & Štěpánek [= Ta	raxacum
	stenolobum Stschegl., Taraxacum commixtiforme Soest]	[4, 8–10, 13, 14]
E	Taraxacum selengensis Tzvelev	[3]
	Taraxacum sinicum Kitag. [= Taraxacum borealisinense Kitar	n.] [3–16]
SE	Taraxacum smirnovii M.S.Ivanova	[7]
SE	Taraxacum songoricum Schischk.	[6, 7, 13]
	Taraxacum stanjukoviczii Schischk.	[7, 13]
E	Taraxacum submacilentum Tzvelev	[7]
	Taraxacum sumneviczii Schischk.	[1, 7, 13]
	Taraxacum tibetanum HandMazz.	[13, 14]
	Taraxacum turgaicum Schischk.	[7, 13, 14]
SE	Taraxacum tuvense Krasnob. & Krasnikov	[1]
	Tephroseris flammea (DC.) Holub [≡ Senecio flammeus DC.]	[5]
	Tephroseris integrifolia subsp. atropurpurea (Ledeb.) B.Nord	. [1]
	Tephroseris integrifolia (L.) Holub subsp. integrifolia [= Sene	cio campestris
	(Retz.) DC.]	[1-4, 6-9, 13]
	Tephroseris kirilowii (DC.) Holub	[5]
	Tephroseris palustris (L.) Rchb. [≡ Senecio palustris (L.) Hool	k.] [1, 2, 4–10]
SE	Tephroseris porphyrantha (Schischk.) Holub [= Senecio porph	yranthus Schis-
	chk.]	[1, 7]
	Tephroseris praticola (Sisk. & Serg.) Holub [= Senecio asiatica	Schischk. & Serg.]
		[1, 2, 3, 7]
	Tephroseris pricei (N.D.Simpson) Holub	
	[≡ Senecio pricei N.D.Simpson]	[1, 3, 6, 7, 13, 14]
SE	Tephroseris sukaczevii (Schischk.) Holub	
	[≡ Senecio sukaczevii Schischk.]	[2, 4, 9]
	Tephroseris turczaninovii (DC.) Holub	
	[≡Senecio sumneviczii Schischk. & Serg.]	[1, 2, 3, 6, 7]
	Tephroseris vereszczaginii (Schischk. & Serg.) Holub	
	[≡ Senecio veresczaginii Schischk. & Serg.]	[7]
	Tibetiodes flaccida (Bunge) G.L.Nesom	
	[≡ Erigeron flaccidus (Bunge) Botsch.]	[1, 2, 3, 4, 6, 7]
	Tragopogon kasahstanicus S.A.Nikitin	[7]
	Tragopogon orientalis L.	[6, 7]
	Tragopogon ruber S.G.Gmel.	[7, 14]
	Tragopogon songoricus S.A.Nikitin	[6, 7, 13, 14]
SE	Tragopogon trachycarpus S.A.Nikitin	[2-5, 7, 8, 13]

		Tripleurospermum ambiguum (Ledeb.) Franch. & Sav.	
		[≡ Matricaria ambigua (Ledeb.) Krylov]	[6, 7]
		Tripolium pannonicum (Jacq.) Dobrocz. [≡ Tripolium	pannonicum Jacq.]
			[4, 9–13]
		Trommsdorffia ciliata (Thunb.) Soják [≡ Hypochaeris d	<b>.</b>
		$\mathcal{I}_{I}}}}}}}}}}$	[5]
SE		Tugarinovia mongolica Iljin	[11, 12, 13, 16]
		Turczaninovia fastigiata (Fisch.) DC. [≡Aster fastigiata	
		Vickifunkia songarica (Fisch.) C.Ren [≡ Ligularia song	
		g	[14]
		Vickifunkia thomsonii (C.B.Clarke) C.Ren	
		[≡ <i>Ligularia thomsonii</i> (C.B.Clarke) Pojark.]	[14]
		Vickifunkia thyrsoidea (Ledeb.) C.Ren [≡ Ligularia th	
			[6, 7, 14]
			[ , , , ]
	29.	Balsaminaceae A.Rich. (1 genus and 2 species)	
		Impatiens noli-tangere L.	[1, 2, 3, 4, 5, 9]
		Impatiens parviflora DC.	[7]
			L . J
	30.	Berberidaceae Juss. (1 genus and 2 species)	
		Berberis amurensis Rupr.	[5]
		Berberis sibirica Pall.	[1-4, 6, 7, 9, 10, 13]
	31.	Betulaceae Gray (2 genera and 9 taxa)	
		Alnus alnobetula subsp. fruticosa (Rupr.) Raus	[1, 2, 4, 9]
		Betula fruticosa Pall.	[1, 2, 3, 4, 5, 6]
		Betula mandshurica subsp. tauschii (Regel) Kamelin	[4, 5]
		Betula microphylla Bunge	[1-4, 6-8, 10, 13, 14]
		Betula nana subsp. exilis (Sukachev) Hultén	[2, 3]
		Betula nana subsp. rotundifolia (Spach) Malyschev	[1, 2, 3, 6, 7]
		Betula ovalifolia Rupr.	[1-5, 7, 8, 13]
		Betula pendula subsp. mandshurica (Regel) Ashburne	r & McAll. [1–5, 8, 13]
		Betula pendula Roth subsp. pendula	[2, 3, 4]
	32.	Biebersteiniaceae Schnizl. (1 genus and 1 species)	
		Biebersteinia odora Stephan	[6, 7]
		1	
	33.	Bignoniaceae Juss. (1 genus and 1 species)	
SE		Incarvillea potaninii Batalin	[13, 15, 16]

# **34.** Boraginaceae Juss. (24 genera and 78 taxa)

Note: Since Urgamal et al. (2014), several genera and species have been critically revised and updated by Ovczinnikova (2019a). Additionally, six new species of *Craniospermum* Lehm. have been described from Mongolia by Ovczinnikova and

Korolyuk (2016) and Ovchinnikova (2019b, 2020). We follow the treatment of Ovczinnikova (2019a). Furthermore, *Arnebia tibetica* previously known as a synonym of *A. guttata*, differs from *A. guttata* based on floral morphology and plastid genome characteristics discovered by Park et al. (2020).

	genome characteristics discovered by Park et al. (2020).		
	Amblynotus rupestris (Pall.) Popov [≡ Eritrichium rupestre (Georgi) Bunge]		
		[1-9, 13]	
	Anchusa arvensis (L.) M.Bieb.	[7, 10, 11, 14]	
SE	Anoplocaryum compressum Ledeb. [≡ Echinospermum	compressum (Ledeb.)	
	Turcz.]	[1, 2, 3, 6, 8]	
E	Anoplocaryum tenellum A.L.Ebel & Rudaya [≡ Micrould	a tenella (A.L.Ebel &	
	Rudaya)]	[7]	
SE	Anoplocaryum turczaninovii Krasnob.	[1, 3, 6, 7, 8, 10, 14]	
	Arnebia decumbens Coss. & Kralik	[6, 7, 8, 13, 14]	
	Arnebia fimbriata Maxim.	[11–13, 15, 16]	
	Arnebia guttata Bunge	[3, 7, 10–16]	
	Arnebia tibetana Kurz	[7]	
	Asperugo procumbens L.	[3, 6, 7, 10, 14]	
E	Asperula gobicola Grubov [= Asperula saxicola Grubov]	[13, 16]	
SE	Craniospermum canescens DC.	[3, 7, 13, 14]	
E	Craniospermum desertorum Ovczinnikova & A.Korolyuk	[7]	
E	Craniospermum gubanovii Ovczinnikova	[14]	
E	Craniospermum kamelinii Ovczinnikova	[7]	
SE	Craniospermum mongolicum I.M.Johnst.	[7, 11-14]	
E	Craniospermum montanostepposum Ovczinnikova	[7]	
E	Craniospermum pseudotuvinicum Ovczinnikova & A.Kor	olyuk [10]	
SE	Craniospermum tuvinicum Ovczinnikova	[6, 7]	
E	Craniospermum volkovae Ovczinnikova	[10]	
	Cynoglossum divaricatum Steph.	[3, 4, 8, 9, 13, 14]	
SE	Eritrichium alpinum Ovczinnikova	[6]	
	Eritrichium pauciflorum DC.	[1–8, 13]	
	Eritrichium pectinatum DC.	[3]	
SE	Eritrichium pulviniforme Popov	[3, 10, 13]	
SE	Eritrichium sajanense (Malysch.) Sipliv.	[1]	
	Eritrichium thymifolium (DC.) Y.S.Lian & J.Q.Wang	[3, 4, 6-15]	
	Eritrichium tianschanicum Iljin	[6]	
	Eritrichium villosum (Ledeb.) Bunge [≡ Myosotis villosa Led	eb.] [2, 3, 4, 6, 7, 14]	
	<i>Hackelia deflexa</i> (Wahlenb.) Opiz [≡ <i>Myosotis deflexa</i> Wa	hlenb.]	
		[2-5, 7, 9, 10, 13]	
	Heliotropium ellipticum Ledeb.	[6, 7, 15]	
	Lappula balchaschensis Popov	[7, 13, 14, 15]	
	Lappula brachycentroides Popov	[3]	
	Lappula consanguinea Gürke [2–4]	, 6, 7, 10, 11, 13, 14]	
	Lappula coronifera Popov	[3]	

	Lappula duplicicarpa Pavlov	[7, 12, 14]
SE	Lappula granulata (Krylov) Popov	[3, 7, 9, 10, 12]
	Lappula heteracantha (Ledeb.) Gürke	[7]
	Lappula intermedia (Ledeb.) Popov	[3, 4, 6, 7, 9, 14, 15]
	Lappula krylovii Ovczinnikova, Pjak & A.L.Ebel	[7]
	Lappula macrantha (Ledeb.) Gürke	[7, 14]
	Lappula microcarpa Gürke	[7, 10]
	Lappula myosotis Wolf	[2–5, 8, 9, 13]
	Lappula patula Asch.	[3, 15]
	Lappula redowskii (Hornem.) Greene	[1-4, 8, 9, 11-13]
	Lappula semiglabra (Ledeb.) Gürke	[7, 11, 14, 15]
	Lappula stricta (Ledeb.) Gürke	[3, 7–12, 14, 15]
	Lappula tadshikorum Popov	[7]
	Lappula tenuis Gürke	[14, 15]
	Lappula tianschanica Popov & Zakirov	[7]
	Lappula tuvinica Ovczinnikova	[6]
	Lindelofia stylosa (Kar. & Kir.) Brand [≡ Cynoglossum s	
		[7, 10, 11, 14]
	Mertensia davurica (Sims) G.Don [= Mertensia ochrole	uca IkonnGal.]
		[1, 2, 3, 4]
	Mertensia pallasii G.Don	[7]
	Mertensia stylosa DC.	[1, 2, 3]
	Mertensia tarbagataica B.Fedtsch.	[7]
SE	Microula tibetica var. pratensis (Maxim.) W.T.Wang	
	Maxim.]	[3, 7]
	Myosotis alpestris F.W.Schmidt	[1–4, 6, 7, 9, 14]
	Myosotis austrosibirica O.D.Nikif.	[7, 13]
	Myosotis baltica Sam.	[3, 5]
	Myosotis caespitosa Schultz	[2–5, 9, 10, 14]
	Myosotis krylovii Serg.	[1-4, 6, 7, 13]
	Myosotis scorpioides L.	[2]
	Myosotis stricta Link	[7]
	Nonea caspica G.Don	[7, 10, 11, 14, 15]
	Nonea pulla DC.	[2, 4, 8, 9, 14]
	Nonea rossica Steven	[3]
	Onosma fuyunensis Y.He & Q.R.Liu	[7]
	Onosma gmelinii Ledeb.	[7, 14]
	Onosma setosa Ledeb. subsp. setosa	[7]
	Onosma setosa subsp. transrhymnensis (Klokov) Kameli	n [3, 7, 10]
	Pseudolappula occultata (Popov) Q.R.Liu & D.H.Liu	
	[≡ <i>Lappula occultata</i> Popov]	[14]
	Pulmonaria dacica (Simonk.) Simonk. [= Pulmonaria mo	ollissima A.Kern.] [2, 4]
	Rindera tetraspis Pall.	[14]
	<u>-</u>	

Rochelia bungei Trautv.	[3, 6, 14]
Rochelia leiocarpa Ledeb.	[6, 14]
Stenosolenium saxatile (Pall.) Turcz. [≡ Anchusa saxatilis Pall.]	[3, 4, 10]
Tournefortia sibirica L. [= Messerschmidia sibirica (L.) L.]	[5, 8–13, 16]

# **35. Brassicaceae** Burnett (51 genera and 138 taxa)

Note: The updated checklist and taxonomic notes of Brassicaceae was recently revised by German (2015). In this study, we followed German (2015) where the names of several species and genera changed compared to Urgamal et al (2014). Since 2015, several new records of this family have been found in the flora of Mongolia (Dorofeyev 2019; Dorofeyev and Ekhmaa 2020). For example, *Lepidium gobicum* V.I.Dorof. was newly described from Mongolia and China by Dorofeyev (2019); however, this species should be referred to *Lepidium apetalum* Willd. (German 2020).

I	,
Alyssum desertorum Stapf	[3, 6, 7, 8, 10]
Alyssum lenense Adams	[1-5, 7, 8, 9]
Aphragmus involucratus O.E.Schulz	[7, 13]
Arabidopsis thaliana (L.) Heynh.	[6, 7]
Arabis borealis Andrz.	[2, 3, 4, 5, 9]
Barbarea orthoceras Ledeb.	[2, 3, 4, 5, 9]
Barbarea vulgaris W.T.Aiton	[2, 3, 4, 5, 7]
Braya humilis (C.A.Mey.) B.L.Rob.	
[= Neotorularia grubovii (Botsch.) Botsch., Neotor	rularia mongolica
Botsch. & Gubanov]	[1, 3, 4, 6, 7, 8]
Braya rosea Bunge	[1, 3, 6, 7]
Braya siliquosa Bunge	[1]
Camelina microcarpa Andrz.	[4, 6, 14]
Capsella bursa-pastoris (L.) Medik.	[2–4, 6, 7, 10, 14]
Capsella orientalis Klokov [≡ Capsella bursa-pastoris su	bsp. <i>orientalis</i> (Klokov)
Tzvelev]	[7, 10]
Cardamine bellidifolia L.	[1, 2, 3, 7]
Cardamine impatiens L.	[6]
Cardamine leucantha (Tausch) O.E.Schulz	[5]
Cardamine macrophylla Willd.	[1, 2, 6, 7]
Cardamine parviflora L.	[2, 3]
Cardamine pratensis L.	[1-5, 7, 9]
Cardamine prorepens Fisch.	[5]
Cardamine trifida (Lam.) B.M.G.Jones	[5]
Catolobus pendulus (L.) Al-Shehbaz [= Arabis pendula	L.]
	[1–6, 8, 9, 10, 12, 13]
Chorispora bungeana Fisch. & C.A.Mey.	[7]
Chorispora sibirica (L.) DC.	[6, 7, 13, 14]
Chorispora tenella (Pall.) DC.	[7, 14]
Clausia aprica Trotzky	[1-4, 6, 7, 9]
-	

	Clausia trichosepala (Turcz.) F.Dvořák	[4]
	Crucihimalaya mollissima (C.A.Mey.) Al-Shehbaz [≡	Sisymbrium mollissimum
	C.A.Mey.]	[6, 7, 9, 13, 14]
SE	Crucihimalaya rupicola (Krylov) A.L.Ebel & D.A.G	German [≡ Arabis rupicola
	Krylov]	[6, 7, 10, 11, 13, 14]
	Dendroarabis fruticulosa (C.A.Mey.) D.A.German	& Al-Shehbaz [≡ <i>Arabis</i>
	fruticulosa C.A.Mey.]	[1, 7]
	Descurainia sophia (L.) Webb	[1-10, 12-14]
SE	Dontostemon crassifolius (Bunge) Maxim.	[7, 10–16]
	Dontostemon dentatus Ledeb.	[5]
SE	Dontostemon elegans Maxim.	[6, 7, 10, 11, 13–16]
E	Dontostemon gubanovii (D.A.German) D.A.Germa	n [≡ <i>Dontostemon senilis</i>
	subsp. gubanovii D.A.German]	[6, 7, 10]
	Dontostemon integrifolius (L.) Ledeb.	[1–13, 16]
	Dontostemon micranthus C.A.Mey.	[1-5, 8, 9, 13]
SE	Dontostemon perennis C.A.Mey.	[3, 5–8, 10–13, 15]
	Dontostemon pinnatifidus (Willd.) Al-Shehbaz & H.G.	Ohba [≡ <i>Cheiranthus pin-</i>
	natifidus Willd.]	[1, 3, 4, 8, 13]
SE	Dontostemon senilis Maxim.	[6, 7, 8, 10–16]
	Draba alpina L.	[6]
	Draba altaica (C.A.Mey.) Bunge	[6, 7, 13]
SE	Draba baicalensis Tolm.	[3, 6, 7]
	Draba eriopoda Turcz.	[1, 2, 3, 6]
	Draba fladnizensis Wulfen	[1, 2, 3, 6, 7, 13]
	Draba hirta L.	[1, 2, 3, 6, 7, 13]
	Draba kusnetzovii (Turcz.) Hayek	[1, 3, 6, 7, 13]
	Draba lanceolata Royle	[1-4, 6, 7, 13]
	Draba mongolica Turcz.	[1,3]
	Draba nemorosa L.	[1–10, 13]
	Draba ochroleuca Bunge	[1, 3, 6, 7, 13]
	Draba oreades Schrenk	[1, 3, 6, 7, 13]
SE	Draba pygmaea Turcz.	[1, 3, 6]
	Draba sibirica (Pall.) Thell.	[3, 7]
	Draba stenocarpa Hook.f. & Thomson	[7]
	Draba subamplexicaulis C.A.Mey.	[1–3, 6, 7, 13, 14]
	Draba turczaninowii Pohle	[1, 6, 7, 13]
	Erysimum andrzejowskianum Bess.	[7]
	Erysimum cheiranthoides subsp. altum Ahti [with	out indication of regions]
	Erysimum cheiranthoides L. subsp. cheiranthoides	[1–5, 7–11, 13, 14]
	Erysimum cheiranthoides subsp. transiliense (Popov) I	O.A.German [≡ <i>Erysi-</i>
	mum transiliense Popov]	[7]
	Erysimum flavum (Georgi) Bobrov subsp. flavum	[1-5, 8, 9, 12]
	Erysimum flavum subsp. altaicum (C.A.Mey.) Polozh	ij [3, 6, 7, 10]

C.F.	
SE	Erysimum kotuchovii D.A.German [7]
	Erysimum ledebourii D.A.German [7]
	Erysimum marschallianum Andrz. [2–4, 6, 7, 10, 13, 14]
SE	Erysimum mongolicum D.A.German [7, 14]
	Erysimum sisymbrioides C.A.Mey. [6, 7, 15]
	Eutrema edwardsii subsp. compactum (O.E.Schulz) A.L.Ebel [≡ Eutrema
	compactum O.E.Schulz] [7]
	Eutrema edwardsii R.Br. subsp. edwardsii [1–3, 6, 7, 13]
	Eutrema salsugineum (Pall.) Al-Shehbaz & Warwick
	$[\equiv Sisymbrium \ salsugineum \ Pall.] $ [3, 4, 6–10]
E	Galitzkya macrocarpa (IkonnGal.)Botsch. [≡ Berteroa macrocarpa Ikonn
	Gal.] [13, 15]
SE	Galitzkya potaninii (Maxim.)Botsch. [7, 14, 15]
SE	Goldbachia ikonnikovii Vassilcz. [6, 7, 8, 10, 11, 13,
	14]
	Goldbachia pendulaBotsch. [7, 14]
	<i>Hesperis sibirica</i> L. [1, 2, 3, 4, 7]
	Hornungia procumbens Hayek [3, 6, 7, 10, 11, 14]
	Iljinskaea planisiliqua (Fisch. & C.A.Mey.) Al-Shehbaz
	$[\equiv Conringia\ planisiliqua\ Fisch.\ \&\ C.A.Mey.]$ [6, 14]
	<i>Isatis costata</i> C.A.Mey. [2–4, 6–9, 11–14]
	Isatis gymnocarpa (Fisch.) Al-Shehbaz, Moazzeni & Mumm.
	$[\equiv Tauscheria gymnocarpa Fisch.] $ [14]
	Isatis multicaulis (Kar. & Kir.) Jafri [14]
	<i>Isatis oblongata</i> DC. [1, 3, 4, 6–9, 13]
	Leiocarpaea cochlearioides (Murray) D.A.German & Al-Shehbaz
	$[\equiv Bunias\ cochlearioides\ Murray]$ [1]
	Leiospora exscapa (C.A.Mey.) F.Dvořák [≡ Parrya exscapa C.A.Mey.] [1, 6, 7]
	Lepidium affine Ledeb. [ $\equiv$ Lepidium latifolium subsp. affine (Ledeb.) Kitag.]
	[4, 9, 14]
	Lepidium amplexicaule Willd. [3, 7–11, 14, 15]
	Lepidium apetalum Willd. [1–5, 7–15]
	Lepidium appelianum Al-Shehbaz [7, 10, 11, 14–16.]
	Lepidium cartilagineum Thell. [5–8, 10, 12, 14]
	Lepidium cordatum Willd. [6–11, 13–16]
	Lepidium lacerum C.A.Mey. [= Lepidium songaricum Schrenk] [7, 14]
	<i>Lepidium obtusum</i> Basiner [6, 7, 10, 14, 15]
	Litwinowia tenuissima (Pall.) Woronow [14]
	Macropodium nivale R.Br. [1, 7]
	Matthiola superba Conti [14]
	Megacarpaea megalocarpa Schischk. [14]
	Meniocus linifolius (Willd.) DC. $[\equiv Alyssum\ linifolium\ Willd.]$ [3, 5, 7]
SE	Microstigma brachycarpum Botsch. [6, 7, 15, 16]

SE	Microstigma deflexum (Bunge) Juz. [3, 6, 7, 12, 13, 15	, 16]	
	Neotorularia brevipes (Kar. & Kir.) Hedge & J.Léonard [≡ Sisymbrium		
	brevipes F.Muell.] [7	, 14]	
	Noccaea ferganensis (N.Busch) Czerep. [≡ Thlaspi ferganense N.Busch]	[7]	
	Noccaea thlaspidioides (Pall.) F.K.Mey.		
	$[\equiv Lepidium\ thlaspidioides\ Pall. = Thlaspi\ cochleariforme\ DC.]$ [1–9	, 13]	
	Odontarrhena obovata C.A.Mey. [≡ Alyssum obovatum (C.A.Mey.) Turcz.] [1	-10]	
	Olimarabidopsis pumila (Stephan) Al-Shehbaz		
	[≡ Sisymbrium pumilum Stephan]	[14]	
SE	Pachyneurum grandiflorum Bunge [1, 3, 6, 7	, 13]	
	Pugionium dolabratum Maxim. [11, 12, 13	, 16]	
SE	Pugionium pterocarpum Kom.	[10]	
	Rhammatophyllum erysimoides (Kar. & Kir.) Al-Shehbaz & O.Appel		
		, 14]	
	Rorippa barbareifolia (DC.) Kitag.	[2]	
	Rorippa dogadovae Tzvelev [3	, 11]	
	Rorippa palustris Besser [1–11, 13	, 14]	
	Sisymbrium brassiciforme C.A.Mey. [7, 9, 14	, 15]	
	Sisymbrium heteromallum C.A.Mey. [2–4, 6–8, 10	-14]	
	Sisymbrium loeselii L. [3, 4	, 14]	
	Sisymbrium polymorphum (Murr.) Roth [3, 4, 6–10]	, 14]	
	Sisymbrium subspinescens Bunge	[14]	
	Smelowskia alba (Pall.) B.Fedtsch. [1, 3, 4, 6, 7, 10, 13	, 14]	
SE	Smelowskia altaica (Pobed.) Botsch.	[6, 7]	
	Smelowskia bifurcata (Ledeb.) Botsch.	[1, 3]	
	Smelowskia calycina (Stephan) C.A.Mey. [= Lepidium calycinum Steph.]		
	[1, 3, 6, 7, 13	, 14]	
SE	Smelowskia calycina subsp. pectinata (Bunge) D.A.German [= Hutchinsia]	becti-	
	nata Bunge] [3, 7, 13	, 14]	
E	Smelowskia mongolica Kom.	[3]	
SE	Sterigmostemum violaceum (Botsch.) H.L.Yang [≡ Oreoloma violaceum Botsch.,		
	= Sterigmostemum regeliorum Kamelin & D.German] [7	, 14]	
	Stevenia alyssoides Adams & Fisch.	[1, 3]	
SE	Stevenia alyssoides subsp. zinaidae (Malyschev) Kamelin [≡ Stevenia zin	aidae	
	Malyschev]	[1, 3]	
	Stevenia canescens (DC.) D.A.German		
	$[\equiv Alyssum\ canescens\ DC. \equiv Ptilotrichum\ canescens\ (DC.)\ C.A.Mey.]$	1–4,	
	6–9, 11–16]		
SE	Stevenia cheiranthoides DC. subsp. cheiranthoides [4, 5, 6,	7, 9]	
	Stevenia cheiranthoides subsp. incarnata (Kamelin) D.A.German		
	[1-4, 6-8	, 10]	
SE	Stevenia dahurica (Peschkova) D.A.German & Al-Shehbaz [≡ Alyssum da		
	cum (Peschkova) Al-Shehbaz, Ptilotrichum dahuricum Peschkova] [4, 5,	8, 9]	

SE	Stevenia sergievskajae (Krasnob.) Kamelin & Gubanov [≡ Aly	vssum sergievskajae
	Krasnob.]	[3]
SE	Stevenia tenuifolia (Stephan) D.A.German [= Alyssum tenuif	olium Steph.]
		[2–10, 12–15]
	Strigosella africana (L.) Botsch.	[10, 11]
	Strigosella brevipes (Bunge) Botsch.	[14]
	Subularia aquatica L.	[3, 6]
	Tetracme quadricornis (Steph.) Bunge	[7, 14]
		1–4, 6, 7, 13, 14]
	Thlaspi ceratocarpum (Pall.) Murray	
	[≡ Carpoceras ceratocarpum (Pall.) N. Busch]	[6, 10, 14]
	Turritis glabra L.	[7]
		f. 1
36	<b>6. Butomaceae</b> Mirb. (1 genus and 2 species)	
	Butomus junceus Turcz.	[1, 8, 9, 10, 14]
	Butomus umbellatus L.	[1–5, 8, 9, 14]
37	'. Campanulaceae Juss. (4 genera and 18 taxa)	
E	Adenophora changaica Gubanov & Kamelin	[3]
	Adenophora gmelinii Fisch.	[4, 5, 9]
	Adenophora lamarkii Fisch. [≡ Campanula lamarckii D.Dietr	<del>-</del>
	Adenophora liliifolia (L.) A.DC. [≡ Campanula liliifolia L.]	[2, 6, 8]
	Adenophora pereskiifolia (Fisch.) G.Don	[4, 5, 9]
	Adenophora stenanthina (Ledeb.) Kitagawa [= Adenophora cri	<u> </u>
		[1–5, 8, 9, 13]
	Adenophora tricuspidata A.DC.	[2, 4, 5, 9]
	Adenophora triphylla (Thunb.) A.DC. [≡ Campanula triphylla	2
		[2, 4, 9]
	Campanula cervicaria L.	[2]
	Campanula dasyantha M.Bieb.	[1,2]
	Campanula glomerata L.	[1–7, 9]
	Campanula punctata Lam.	[9]
	Campanula rotundifolia L.	[6]
	Campanula stevenii subsp. altaica (Ledeb.) Fed. [≡ Campanu	
		[7]
	Campanula stevenii subsp. turczaninovii (Fed.) Victorov	[, ]
	[≡ Campanula turczaninovii Fed.]	[1, 2, 3, 6, 13]
	Campanula stevenii subsp. wolgensis (P.A.Smirn.) Fed.	[1, 2, 3, 0, 10]
	[≡ Campanula wolgensis P.A.Smirn.]	[7]
	Codonopsis clematidea C.B.Clarke	[7]
	Platycodon grandiflorus A.DC.	[5]
		رکا
38	3. Caprifoliaceae Juss. (5 genera and 24 taxa)	
	Linnaea borealis L.	[1, 7, 13, 14]
		L~7 / 7 * U 7 * * ]

	Lonicera caerulea subsp. altaica (Pall.) Gladkova [≡ Lonicer	a altaica Pall.]
		[1–4, 6, 7, 13, 14]
	Lonicera caerulea L. subsp. caerulea	[6]
	Lonicera caerulea var. venulosa (Maxim.) Vorosch. [ $\equiv$ Lonicer	
	Lometa entanta vai. ventuosa (iviaxiiii.) voioseii. [— Lometa	[5]
	Lonicera chrysantha Turcz.	[5]
	Lonicera hispida Pall.	[3, 6, 7, 13, 14]
	Lonicera microphylla Willd. [≡ Caprifolium microphyllum (`	
		7, 9, 10, 13, 14, 16]
	Lonicera tatarica L.	[4]
	Patrinia heterophylla Bunge	[9]
	Patrinia intermedia Roem. & Schult.	[3, 6, 7, 14]
	Patrinia rupestris (Pall.) Dufr. [≡ Valeriana rupestris Pall.]	[1-5, 8, 9]
	Patrinia scabiosifolia Fisch.	[4, 5]
	Patrinia sibirica (L.) Juss.	[1–7]
	Scabiosa comosa Fisch.	[1-5, 8, 9]
	Scabiosa ochroleuca L.	[3, 10]
	Valeriana altaica Sumnev.	[1, 2]
	Valeriana alternifolia Ledeb. [= Valeriana dahurica Sumney	
	Valeriana capitata Pall.	[1]
	Valeriana dubia Bunge	[1, 3, 6, 7, 14]
	Valeriana martjanovi Krylov [= Valeriana saichanensis Kom	_
	Valeriana officinalis L.	[1, 2, 3, 4, 8, 9]
	Valeriana petrophila Bunge	[1, 3, 6, 7, 13]
SE		[16]
SE		[1, 3, 7]
	30 Carronhyllacase Just (20 genera and 97 taxa)	
	<b>39. Caryophyllaceae</b> Juss. (20 genera and 97 taxa)	[6 7 1/1]
	Acanthophyllum pungens Boiss.	[6, 7, 14]
	Arenaria leptoclados Guss.	[7] [7, 14]
	Arenaria serpyllifolia L. Cerastium alpinum L.	
	Cerastium arvense L.	[6]
		[1–10, 13, 14]
	Cerastium cerastoides (L.) Britton [\equiv Dichodon cerastoides (I	
	≡ Stellaria cerastoides L.] Cerastium davuricum Fisch.	[1–7, 10, 14] [2, 4, 7, 14]
	Cerastium falcatum (Gren.) Bunge [= Stellaria falcata Ser.]	[14]
	Cerastium holosteoides Fr. [= Cerastium fontanum f. holosteo	
	M.B.Wyse Jacks.]	[2]
	Cerastium lithospermifolium Fisch. Cerastium maximum L.	[1, 3, 6, 7, 10, 13]
		[13]
	Cerastium pauciflorum Steven	[1, 2, 3, 6, 7]
	Cerastium pusillum Ser.	[1, 2, 3, 6, 7, 14]

	Cherleria arctica (Steven) A.J.Moore & Dillenb.	
	[≡ <i>Minuartia arctica</i> (Steven) Graebn.]	[1, 2, 3, 4, 6, 7]
	Cherleria biflora (L.) A.J.Moore & Dillenb.	
	[≡ Minuartia biflora (L.) Schinz & Thell.]	[1, 2, 3, 6, 7]
	Dianthus chinensis L. [= Dianthus versicolor Fisch.]	[1-11, 13]
	Dianthus crinitus subsp. soongoricus (Schischk.) Kozhevn.	
	$[\equiv Dianthus soongoricus Schischk.]$	[7, 14]
	Dianthus ramosissimus Pall.	[10]
	Dianthus repens Willd. [ $\equiv$ Dianthus chinensis subsp. repens	(Willd.) Vorosch.]
		[6, 7]
	Dianthus superbus L.	[1-10, 13]
	Eremogone androsacea (Grubov) Ikonn. [≡ Arenaria andros	acea Grubov]
		[13]
	Eremogone asiatica (Schischk.) Ikonn. [≡ Arenaria asiatica	Schischk.] [7]
	Eremogone capillaris (Poir.) Fenzl [≡ Arenaria capillaris Poir	
	Eremogone juncea (M.Bieb.) Fenzl [= Arenaria juncea M.B.	
	Eremogone meyeri (Fenzl) Ikonn. [≡ Arenaria meyeri Fenzl]	
	·	6, 7, 9, 10, 12, 13]
SE	Eremogone mongolica (Schischk.) Ikonn. [≡ Arenaria mongoli	ica Schischk.] [7]
SE	Gymnocarpos przewalskii Maxim. [≡ Paronychia przewalskii	
	& Urmi-König]	[12, 14, 16]
	Gypsophila altissima L.	[7]
	Gypsophila capituliflora Rupr.	[7, 13, 14, 15]
	Gypsophila cephalotes (Schrenk) F.N.Williams	[6, 7]
	Gypsophila davurica Fenzl	
	[≡ <i>Gypsophila patrinii</i> subsp. <i>davurica</i> (Fenzl) Kozhevr	n.] [2–5, 8, 9, 13]
	Gypsophila paniculata L.	[3, 4, 7, 10]
		1, 3, 4, 6–8, 10, 11]
	Gypsophila perfoliata L.	[10]
	Gypsophila sericea (Ser.) Krylov [≡ Arenaria sericea Ser.]	[7]
	Herniaria caucasica Rupr.	[7]
	Herniaria glabra L.	[7]
	Heterochroa desertorum Bunge [≡ Gypsophila desertorum Fe	
	8-1-71-1	[1–4, 6–13, 16]
	Lepyrodiclis holosteoides (C.A.Mey.) Fenzl [≡ Gouffeia holos	
	15	[3, 10]
	Moehringia lateriflora (L.) Fenzl [≡ Arenaria lateriflora L.]	
	Moehringia umbrosa (Bunge) Fenzl [≡ Arenaria umbrosa B	
		7]
	Pseudocherleria laricina (L.) Dillenb. & Kadereit	, 1
	[≡ Minuartia laricina Mattf.]	[4, 5]
	Pseudostellaria rupestris (Turcz.) Pax	[1-4, 7, 13]
	(-3-3-7) 2 4-7	[, , , -0]

	Sabulina regeliana (Trautv.) Dillenb. & Kadereit	
	[= Minuartia regeliana (Trautv.) Mattf.]	[3]
	Sabulina stricta (Sw.) Rchb. [≡ Minuartia stricta (Sw.) Hierr	
	Sabulina verna Rchb. [≡ Minuartia verna (L.) Hiern]	[1–3, 6, 7, 14]
	Sagina saginoides (L.) H.Karst.	[7]
	Saponaria floribunda (Kar. & Kir.) Boiss.	
	[≡ <i>Psammophiliella floribunda</i> (Kar. & Kir.) Ikonn.]	[14]
	Silene alexandrae B.Keller	[14]
	Silene altaica Pers.	[7, 13, 14]
	Silene aprica Turcz. [≡ Ussuria aprica (Turcz.) Tzvelev] [1	-5, 7-10, 12, 13]
	Silene borysthenica (Gruner) Walters	[3, 10]
	Silene bungei Bocquet	[1, 2, 3, 6]
	Silene chamarensis Turcz. [≡ Silene tenuis subsp. chamarensis	
	(Turcz.) Kozhevn.] [1–3, 6	5, 7, 9, 10, 12, 13]
	Silene conoidea L.	[7]
	Silene foliosa Maxim.	[4, 12, 13]
	Silene graminifolia Otth [= Silene sobolevskajae Czerep.]	[2, 6, 7, 10, 14]
	Silene gubanovii Lazkov	[6, 7, 13, 14]
SE	Silene intramongolica Lazkov	[7, 14]
	Silene jeniseensis Willd. [= Silene iche-bogdo Grubov]	[1-6, 8, 9, 13]
	Silene latifolia subsp. alba (Mill.) Greuter & Burdet $[\equiv Lych]$	nis alba Mill.] [7]
E	Silene mongolica Maxim.	[10, 13]
	Silene quadriloba Turcz.	[2, 3, 7, 10, 14]
	Silene repens Patrin	[1-10, 12-14]
	Silene samojedorum (Sambuk) Oxelman	
	[≡ <i>Lychnis sibirica</i> subsp. <i>samojedorum</i> Sambuk.]	[1, 2, 3, 4, 5, 9]
	Silene sibirica Pers.	[14]
	Silene songarica (Fisch., C.A.Mey. & Avé-Lall.) Bocquet [= 6	Gastrolychnis
	brachypetala (Hornem.) Tolm. & Kozhanczikov]	[1-7, 9, 12, 13]
	Silene suaveolens Kar. & Kir. [≡ Carpophora suaveolens (Kar.	& Kir.) Tzvelev
	$\equiv$ Melandrium suaveolens (Kar. & Kir.) Schischk,]	[7, 10, 14]
	Silene uralensis (Rupr.) Bocquet [1–3	6, 6, 7, 10, 13, 14]
	Silene violascens (Tolm.) V.V.Petrovsky & Elven	
	[≡ <i>Gastrolychnis violascens</i> Tolm.]	[7]
	Silene viscosa Schleich.	[3, 7, 10, 14]
	Silene vulgaris (Moench) Garcke [ $\equiv$ Behen vulgaris Moench	[2, 4, 6, 7]
	Spergularia marina (L.) Besser	
	[≡ Arenaria rubra var. marina L.]	[4, 5, 7, 10–15]
	Spergularia segetalis G.Don	[14]
	Stellaria alsinoides Boiss. & Buhse	[7, 14]
	Stellaria amblyosepala Schrenk	[7, 10–16]
	Stellaria brachypetala Bunge [= Stellaria alatavica Popov,	
	Stellaria brachypetala var. alatavica (Popov) Kozhevn.] [1,	3–7, 9, 11, 13, 14]

E

Stellaria bungeana Fenzl [≡ Hylebia bungeana (Fenzl) Tzvelev Stellaria cherleriae (Fisch. ) F.N.Williams [≡ Arenaria cherleri	
	[1–9, 13]
Stellaria crassifolia Ehrh.	[1-11, 14]
Stellaria davurica Willd.	[1-4, 7, 14]
Stellaria depressa Schmid	[7]
Stellaria dichotoma L.	[1–14]
Stellaria dichotoma var. lanceolata Bunge [= Stellaria gypsophi	<i>loides</i> Fenzl] 9, 11–13, 15, 16]
Stellaria discolor Turcz.	[4, 5, 9]
Stellaria filicaulis Makino	[2, 3]
Stellaria imbricata Bunge	[6, 7, 14]
Stellaria irrigua Bunge	[1–4, 6, 7, 13]
Stellaria longifolia Muhl.	[1, 2, 3, 4, 5, 9]
Stellaria longipes Goldie [= Stellularia longipes (Goldie) MacN	
ovenimu vongipes doidie [= ovenimum vongipes (doidie) iviaer	5–7, 9]
Stellaria martjanovii Krylov [= Mesostemma martjanovii (Kry	lov) Ikonn.] [7]
Stellaria media (L.) Vill. [= Alsine media L.]	[2, 3]
Stellaria palustris Ehrh.	[2, 3, 7, 9]
Stellaria petraea Bunge	[1-4, 6, 7, 13]
Stellaria pulvinata Grubov	[6, 7]
Stellaria radians L.	[5, 9]
Stellaria zolotuchinii A.L.Ebel [≡ Stellaria glandulifera N.Zol	ot. nom. illegit.] [3, 10]
<b>40. Celastraceae</b> R.Br. (2 genera and 3 species)	
Euonymus maackii Rupr.	[5, 9]
Parnassia laxmannii Pall.	[1-4, 6, 10]
Parnassia palustris L.	[1–11, 14]
41. Ceratophyllaceae Gray (1 genus and 2 taxa)	
Ceratophyllum demersum L.	[1, 4, 8-10, 14]
Ceratophyllum platyacanthum subsp. oryzetorum (Kom.) Les	[10]
<b>42. Cleomaceae</b> Bercht. & J.Presl (1 genus and 1 species)	
Cleome gobica Grubov	[15]
43. Convolvulaceae Juss. (4 genera and 15 species)	
Calystegia hederacea Wall.	[12, 13]
Calystegia pellita G.Don [= Calystegia dahurica Herb.]	[1, 3, 4]
Calystegia sepium (L.) R.Br. [≡ Convolvulus sepium L.]	[14]
Calystegia subvolubilis G.Don	[2,3]

[10–16]

Convolvulus ammannii Desr.	[2, 3, 4, 6–14, 16]
Convolvulus arvensis L.	[2, 3, 4, 7-16]
Convolvulus fruticosus Pall.	[7, 10–16]
Convolvulus gortschakovii Schrenk	[7, 8, 10, 11, 13–16]
Convolvulus tragacanthoides Turcz.	[12, 16]
Cuscuta australis R.Br.	[9]
Cuscuta chinensis Lam.	[4, 9, 12, 13, 15, 16]
Cuscuta europaea L.	[3–7, 9, 13, 14]
Cuscuta lupuliformis Krock.	[6, 7, 10, 14]
Cuscuta monogyna Vahl [≡ Monogynella monog	yna (Vahl) Hadač] [4, 5, 8, 14]
Merremia sibirica (L.) Hallier f.	[3]
<b>44. Cornaceae</b> Bercht. & J.Presl (1 genus and 1 sp	pecies)
Cornus alba L.	[1, 2, 3, 4, 5, 9]
<b>45. Crassulaceae</b> J.StHil. (6 genera and 17 taxa)	
Crassula aquatica (L.) Schönland	[2, 4, 6, 10]
Hylotelephium ewersii (Ledeb.) H.Ohba [≡ Sed	lum ewersii Ledeb.] [6, 7, 14]
Hylotelephium pallescens (Freyn) H.Ohba	[2, 3, 4, 5]
Hylotelephium telephium (L.) H.Ohba [≡ Sedu	m telephium L.] [1–10]
Orostachys fimbriata (Turcz.) A.Berger $[\equiv Cotyletics]$	ledon fimbriata Turcz.]
	[2–6, 8–13]
<i>Orostachys malacophylla</i> (Pall.) Fisch. $[\equiv Cotylea]$	don malacophylla Pall.]
	[1-5, 8, 9]
Orostachys spinosa (L.) Sweet $\equiv$ Cotyledon spin	
Orostachys thyrsiflora Fisch.	[1, 3-11, 13-15]
Phedimus aizoon (L.) 't Hart [≡ Sedum aizoon ]	
Phedimus hybridus (L.) 't Hart [≡ Sedum hybrid	
Pseudosedum lievenii A.Berger	[7, 14]
Rhodiola algida (Ledeb.) Fisch. & C.A.Mey.	[6,7]
Rhodiola coccinea (Royle) Boriss.	[7]
Rhodiola litwinowii Boriss.	[3, 6, 7, 10]
Rhodiola quadrifida (Pall.) Fisch. & C.A.Mey.	[1-3, 6, 7, 13]
Rhodiola rosea L. [≡ Sedum roseum (L.) Scop.]	[1–8, 13, 14]
Rhodiola stephani (Cham.) Trautv. & C.A.Mey	
& Revjakina = <i>Rhodiola pinnatifida</i> Boriss.	
= <i>Rhodiola subpinnata</i> (Krasnob.) Krasnob	[1, 2, 6, 7, 10]
<b>46. Cynomoriaceae</b> Endl. (1 genus and 1 species)	_
Cynomorium songaricum Rupr. [≡ Cynomorium	
	[10 16]

songaricum (Rupr.) J.Léonard]

## **47. Cyperaceae** Juss. (10 genera and 131 taxa)

Note: To date, eight species of *Kobresia* Willd. have been recorded in Mongolia (Nyambayar 2009b; Urgamal et al. 2014), and they were recently transferred to the genus *Carex* L. (Global Carex Group 2015).

Blysmus compressus L. subsp. brevifolius (Decne.) Kukkonen

Blysmus compressus L. subsp. brevifolius (Decne.) Kukkone	n
[2-	-5, 7-9, 11, 13, 14]
Blysmus rufus Link	[1, 3-15]
Bolboschoenus maritimus (L.) Palla [≡ Scirpus maritimus L.	[14, 16]
Bolboschoenus maritimus subsp. affinis (Roth) T.Koyama	
[= Bolboschoenus popovii T.V.Egorova]	[10–16]
Bolboschoenus planiculmis (F.Schmidt) T.V.Egorova	[4, 5, 8-12, 15]
Carex accrescens Ohwi [= Carex pallida C.A.Mey.]	[2]
Carex acuta L.	[2, 3, 14]
Carex alatauensis S.R.Zhang [= Kobresia humilis (C.A.Mey	y.) Serg.] [3, 6, 7,
	11, 13]
Carex alba Scop.	[1, 2]
Carex altaica (Gorodkov) V.I.Krecz. [≡ Carex orbicularis su	ubsp.
altaica (Gorodkov) T.V.Egorova]	[3]
Carex amgunensis F.Schmidt [= Carex chloroleuca Meinsh.]	[1, 2, 3, 5, 7]
Carex appendiculata Kük.	[2, 4, 5, 8-10]
Carex argunensis Turcz. [≡ Carex rupestris subsp.	
argunensis (Turcz.) Vorosch.]	[2, 4, 5, 7, 9]
Carex arnellii Christ	[2, 3, 4, 5, 9]
Carex aterrima Hoppe	[1, 2, 3, 6, 7]
Carex atherodes Spreng.	[1-5, 7, 8, 9, 11]
Carex atrofusca Schkuhr	[1, 3, 7]
Carex bigelowii subsp. ensifolia (Gorodkov) Holub	[1, 2, 3, 6, 7]
Carex bigelowii subsp. rigidioides (Gorodkov) T.V.Egorova	[2,3]
Carex bistaminata (W.Z.Di & M.J.Zhong) S.R.Zhang	
[≡ Kobresia bistaminata W.Z.Di & M.J.Zhong	
	-3, 5-7, 10, 13, 14]
Carex bohemica Schreb.	[4]
Carex borealipolaris S.R.Zhang [= Kobresia sibirica (Turcz.)	) Boeck.
= Kobresia smirnovii Ivanova]	[1, 2, 3, 6, 7, 14]
Carex brunnescens (Pers.) Poir. $[\equiv Carex \ curta \ var. \ brunnescens)$	
Carex canescens L.	[2, 4, 7]
Carex capillifolia (Decne.) S.R.Zhang [= Kobresia capillifor	
Carex capitata L.	[1, 2, 3, 7]
Carex capricornis Meinsh.	[10]
Carex caryophyllea Latourr.	[1-4, 6, 7, 8, 13]
Carex cespitosa L.	[1-10, 15]
Carex chordorrhiza L.f.	[2]
Carex coriophora Fisch. & C.A.Mey.	[1-5, 8, 9]

	Carex curaica Kunth	[1–3, 6, 7, 10, 11, 14]
	Carex dahurica Kük.	[1, 2]
	Carex delicata C.B.Clarke	[1–10, 13]
	Carex diandra Schrank	[2, 5, 9, 10]
	Carex diluta M.Bieb.	[10]
	Carex distans subsp. aspratilis (V.I.Krecz.) T.V.Egorova	[4, 10]
	Carex duriuscula C.A.Mey.	[1-14, 16]
	Carex eleusinoides Turcz.	[2, 3]
	Carex enervis C.A.Mey.	[1-13, 15]
	Carex eremopyroides V.I.Krecz.	[9, 11]
	Carex ericetorum Pollich	[4]
	Carex globularis L.	[1, 2, 7]
	Carex gotoi Ohwi [≡ Carex songorica subsp. gotoi (Ohw	ri) Popov] [4, 5, 9]
	Carex hancockiana Maxim.	[2, 3, 5]
	Carex heterolepis Bunge	[5]
SE	Carex iljinii V.I.Krecz.	[1, 2, 3]
	Carex karoi Freyn [= Carex selengensis N.A.Ivanova]	[2, 3, 4, 5, 9, 10]
	Carex korshinskii Kom.	[1–6, 8–10, 12, 13]
	Carex lachenalii Schkuhr	[1, 7, 14]
	Carex lanceolata Boott	[2]
	Carex lasiocarpa Ehrh.	[2]
	Carex laxa Wahlenb.	[1, 2]
	Carex ledebouriana C.A.Mey. [ $\equiv$ Carex capillaris subsp.	
	ledebouriana (C.A.Mey.) Vorosch.]	[1, 2, 3, 6, 7]
	Carex leporina L.	[2, 3, 7]
	Carex limosa L.	[2]
	Carex lithophila Turcz. [ $\equiv$ Carex disticha subsp.	
	lithophila (Turcz.) D.Hämet-Ahti]	[2-5, 7, 9, 10]
	Carex loliacea L.	[2, 5]
	Carex macrogyna Turcz.	[1, 3, 6, 7, 13]
	Carex macroprophylla (Y.C.Yang) S.R.Zhang [≡ Kobrest	ia filifolia (Turcz.)
	C.B.Clarke $\equiv$ <i>Kobresia filifolia</i> (Turcz.)	
	C.B.Clarke var. macroprophylla Y.C.Yang]	[1-4, 6-9, 13]
	Carex magellanica Lam. subsp. irrigua (Wahlenb.) Hiit	onen
	[≡ Carex limosa L. var. irrigua Wahlenb.]	[2, 3]
	Carex media R.Br.	[1-4, 6, 7, 10]
	Carex melanantha C.A.Mey.	[1-3, 6, 7, 9, 13]
	Carex melanocephala Turcz.	[1, 3, 7]
	Carex meyeriana Kunth	[1, 2, 3, 5]
	Carex microglochin Wahlenb.	[1–4, 6–8, 11, 14]
	Carex nigra subsp. juncea (Fr.) Soó [= Carex juncella T.	M.Fries] [1, 3]
	Carex norvegica Retz.	[1, 2, 3, 4, 6, 7]
	Carex obtusata Lilj.	[1–3, 6, 7, 9, 13]

	Carex orbicularis Boott [1–8, 12–15]	
	Carex pamirica (O.Fedtsch.) B.Fedtsch. subsp. dichroa (Freyn) T.V.Egorova	
	$[\equiv Carex \ pulla \ Gooden. \ subsp. \ dichroa \ Freyn] \qquad [1-4, 6, 7, 10]$	
	Carex parallela Laest. subsp. redowskiana (C.A.Mey.) T.V.Egorova	
	$[\equiv Carex\ redowskiana\ C.A.Mey.]$ [1, 7]	
	Carex parva Nees [3]	
	Carex pediformis var. macroura (Meinsh.) Kük.	
	$[\equiv Carex \ macroura \ Meinsh.] $ [1, 2, 3, 5, 7]	
	Carex pediformis subsp. pediformis [1–9, 13, 14]	
	Carex praecox Schreb. [2, 4]	
	Carex pseudofoetida Kük. [7, 13]	
	Carex pycnostachya Kar. & Kir. [≡ Carex curaica subsp. pycnostachya	
	(Kar. & Kir.) T.V.Egorova ] [3, 11, 14]	
	Carex raddei Kük. [2]	
	Carex relaxa V.I.Krecz. [3, 4, 8, 9]	
	Carex reptabunda (Trautv.) V.I.Krecz. [1, 3–5, 8, 9, 11, 12, 16]	
	Carex rhynchophysa Fisch. [2–5, 9, 10]	
	Carex rostrata Stokes [1–5, 8, 9, 10]	
	Carex rupestris All. [1, 2, 3, 6, 7, 13]	
	Carex sabulosa Turcz. [1–4, 7, 8, 10]	
	Carex sabynensis Less. [2, 3]	
SE	Carex sajanensis V.I.Krecz. [1–4, 6–9, 11, 12]	
	Carex sargentiana (Hemsl.) S.R.Zhang [ $\equiv$ Kobresia sargentiana Hemsl.	
	= Kobresia robusta Maxim.] [3]	
	Carex saxatilis L. [= Carex saxatilis subsp. laxa (Trautv.) Kalela] [1, 3]	
	<i>Carex schmidtii</i> Meinsh. [2, 3, 4, 5, 8, 9]	
	Carex sedakowii C.A.Mey. [1, 2, 4]	
	Carex simpliciuscula Wahlenb. [= Kobresia simpliciuscula subsp.	
	subholarctica T.V.Egorova] [1, 2, 3, 7, 12, 14]	
	Carex songorica Kar. & Kir. [4, 5, 9, 10, 14]	
	Carex sordida Van Heurck & Müll.Arg. [1, 2, 3, 6, 7, 8, 13, 14]	
	Carex stenophylla subsp. stenophylloides (V.I.Krecz.) T.V.Egorova [3, 7–16]	
	<i>Carex supermascula</i> V.I.Krecz. [1, 2, 4, 5, 9, 13]	
	Carex tenuiflora Wahlenb. [1, 2, 3]	
	Carex tomentosa L. [2, 4, 8]	
	Carex tristis subsp. stenocarpa (Turcz.) T.V.Egorova [1–3, 6–8, 13, 14]	
	Carex vaginata var. petersii (C.A.Mey.) Akiyama [= Carex falcata Turcz.] [2, 3]	
	Carex vaginata Tausch var. vaginata [1, 2, 3]	
	Carex vesicata Meinsh. [1–6, 8, 9, 14]	
	Carex williamsii Britton [2]	
	Carex yamatsutana Ohwi [= Carex diplasiocarpa V.I.Krecz.] [2, 5, 9]	
	Cyperus fuscus L. [8, 9, 10]	
	Cyperus hamulosus M.Bieb. [ $\equiv$ Mariscus hamulosus (M.Bieb.) S.S.Hooper] [10]	

Cyperus michelianus (L.) Delile [\equiv Scirpus michelianus	L.] [4]
Cyperus pannonicus Jacq. [= Juncellus pannonicus	[10 11 16]
(Jacq.) C.B.Clarke]	[10, 11, 16]
Eleocharis acicularis (L.) Roem. & Schult.	[2–4, 6–9, 11, 14]
Eleocharis mamillata (H.Lindb.) H.Lindb.	[10]
Eleocharis mitracarpa Steud.	[7, 14, 15]
Eleocharis palustris (L.) Roem. & Schult. [\equiv Scirpus pa	elustris L.] [1–16]
Eleocharis quinqueflora (Hartmann) O.Schwarz	[2 / 7 0 10 11 15]
[  Scirpus quinqueflorus Hartmann]	[2–4, 7, 8, 10, 11, 15]
Eleocharis uniglumis Schult. [= Eleocharis klingei	[1 2 5 0 10 12 15]
(Meinsh.) B.Fedtsch.]	[1, 3–5, 8–10, 12–15]
Eleocharis yokoscensis (Franch. & Sav.) Tang & F.T.Wa	ng
[≡ Eleocharis acicularis subsp. yokoscensis	[2 5 0 0 1/]
(Franch. & Sav.) T.V.Egorova]	[2–5, 8, 9, 14]
Eriophorum altaicum Meinsh.	[1, 2, 3, 6, 7]
Eriophorum angustifolium Honck.	[1-7, 9, 10, 11]
Eriophorum angustifolium subsp. komarovii (V.N.Vassi	
Eriophorum brachyantherum Trautv. & C.A.Mey.	[1-4, 6, 7, 10]
Eriophorum callitrix C.A.Mey.	[1]
Eriophorum chamissonis C.A.Mey.	F4 0 /1
[= Eriophorum mandshuricum Meinsh.]	[1, 3, 4, 5, 7]
Eriophorum gracile W.D.J.Koch [= Eriophorum gracile	subsp. asiaticum
/X/XXXX -1\\ X C \ X \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	-
(V.N.Vassil.) M.S.Novos.]	[3, 4]
Eriophorum humile Turcz.	[3, 4] [1, 2, 3, 6, 7]
Eriophorum humile Turcz. Eriophorum vaginatum L.	[3, 4] [1, 2, 3, 6, 7] [3]
Eriophorum humile Turcz.  Eriophorum vaginatum L.  Schoenoplectiella supina (L.) Lye [= Schoenoplectus supi	[3, 4] [1, 2, 3, 6, 7] [3] nus (L.) Pall.] [10]
Eriophorum humile Turcz.  Eriophorum vaginatum L.  Schoenoplectiella supina (L.) Lye [= Schoenoplectus supinal Schoenoplectus lacustris subsp. hippolytii (V.I.Krecz.) K.	[3, 4] [1, 2, 3, 6, 7] [3] nus (L.) Pall.] [10] ukkonen
Eriophorum humile Turcz.  Eriophorum vaginatum L.  Schoenoplectiella supina (L.) Lye [= Schoenoplectus supina Schoenoplectus lacustris subsp. hippolytii (V.I.Krecz.) Kitelia Scirpus hippolyti V.I.Krecz.]	[3, 4] [1, 2, 3, 6, 7] [3] nus (L.) Pall.] [10] ukkonen [1–10, 12–15]
Eriophorum humile Turcz.  Eriophorum vaginatum L.  Schoenoplectiella supina (L.) Lye [= Schoenoplectus supina Schoenoplectus lacustris subsp. hippolytii (V.I.Krecz.) King [= Scirpus hippolyti V.I.Krecz.]  Schoenoplectus tabernaemontani (C.C.Gmel.) Pall.	[3, 4] [1, 2, 3, 6, 7] [3] [3] [3] [3] [3] [3] [3] [3] [3] [3
Eriophorum humile Turcz.  Eriophorum vaginatum L.  Schoenoplectiella supina (L.) Lye [= Schoenoplectus supina Schoenoplectus lacustris subsp. hippolytii (V.I.Krecz.) K.  [= Scirpus hippolyti V.I.Krecz.]  Schoenoplectus tabernaemontani (C.C.Gmel.) Pall.  Schoenoplectus triqueter (L.) Palla [= Scirpus triqueter I.	[3, 4] [1, 2, 3, 6, 7] [3] [anus (L.) Pall.] [10] [10] [10] [10] [10] [10] [10] [10
Eriophorum humile Turcz.  Eriophorum vaginatum L.  Schoenoplectiella supina (L.) Lye [= Schoenoplectus supina Schoenoplectus lacustris subsp. hippolytii (V.I.Krecz.) K.  [= Scirpus hippolyti V.I.Krecz.]  Schoenoplectus tabernaemontani (C.C.Gmel.) Pall.  Schoenoplectus triqueter (L.) Palla [= Scirpus triqueter I. Scirpus orientalis Ohwi [= Scirpus sylvaticus subsp. orientalis orient	[3, 4] [1, 2, 3, 6, 7] [3] [anus (L.) Pall.] [10] [10] [10] [10] [10] [10] [10] [10
Eriophorum humile Turcz.  Eriophorum vaginatum L.  Schoenoplectiella supina (L.) Lye [= Schoenoplectus supina Schoenoplectus lacustris subsp. hippolytii (V.I.Krecz.) K.  [= Scirpus hippolyti V.I.Krecz.]  Schoenoplectus tabernaemontani (C.C.Gmel.) Pall.  Schoenoplectus triqueter (L.) Palla [= Scirpus triqueter I. Scirpus orientalis Ohwi [= Scirpus sylvaticus subsp. orientalis Ohwi) Vorosch.]	[3, 4] [1, 2, 3, 6, 7] [3] [anus (L.) Pall.] [10] [10] [10] [10] [10] [10] [10] [10
Eriophorum humile Turcz.  Eriophorum vaginatum L.  Schoenoplectiella supina (L.) Lye [= Schoenoplectus suping Schoenoplectus lacustris subsp. hippolytii (V.I.Krecz.) K.  [= Scirpus hippolyti V.I.Krecz.]  Schoenoplectus tabernaemontani (C.C.Gmel.) Pall.  Schoenoplectus triqueter (L.) Palla [= Scirpus triqueter I. Scirpus orientalis Ohwi [= Scirpus sylvaticus subsp. orientalis Ohwi) Vorosch.]  Scirpus radicans Schkuhr	[3, 4] [1, 2, 3, 6, 7] [3]  nus (L.) Pall.] [10]  ukkonen [1–10, 12–15] [2, 3, 14] [9]  nutalis [2, 3, 4, 5, 9] [2, 3, 4, 5, 9]
Eriophorum humile Turcz.  Eriophorum vaginatum L.  Schoenoplectiella supina (L.) Lye [= Schoenoplectus supina Schoenoplectus lacustris subsp. hippolytii (V.I.Krecz.) K.  [= Scirpus hippolyti V.I.Krecz.]  Schoenoplectus tabernaemontani (C.C.Gmel.) Pall.  Schoenoplectus triqueter (L.) Palla [= Scirpus triqueter I. Scirpus orientalis Ohwi [= Scirpus sylvaticus subsp. orientalis Ohwi) Vorosch.]	[3, 4] [1, 2, 3, 6, 7] [3] [anus (L.) Pall.] [10] [10] [10] [10] [10] [10] [10] [10
Eriophorum humile Turcz.  Eriophorum vaginatum L.  Schoenoplectiella supina (L.) Lye [= Schoenoplectus suping Schoenoplectus lacustris subsp. hippolytii (V.I.Krecz.) K.  [= Scirpus hippolyti V.I.Krecz.]  Schoenoplectus tabernaemontani (C.C.Gmel.) Pall.  Schoenoplectus triqueter (L.) Palla [= Scirpus triqueter I. Scirpus orientalis Ohwi [= Scirpus sylvaticus subsp. orientalis Ohwi) Vorosch.]  Scirpus radicans Schkuhr	[3, 4] [1, 2, 3, 6, 7] [3]  nus (L.) Pall.] [10]  ukkonen [1–10, 12–15] [2, 3, 14] [9]  nutalis [2, 3, 4, 5, 9] [2, 3, 4, 5, 9]
Eriophorum humile Turcz.  Eriophorum vaginatum L.  Schoenoplectiella supina (L.) Lye [= Schoenoplectus supina Schoenoplectus lacustris subsp. hippolytii (V.I.Krecz.) K [= Scirpus hippolyti V.I.Krecz.]  Schoenoplectus tabernaemontani (C.C.Gmel.) Pall.  Schoenoplectus triqueter (L.) Palla [= Scirpus triqueter I Scirpus orientalis Ohwi [= Scirpus sylvaticus subsp. orientalis Ohwi) Vorosch.]  Scirpus radicans Schkuhr  Trichophorum pumilum (Vahl) Schinz & Thell.	[3, 4] [1, 2, 3, 6, 7] [3]  nus (L.) Pall.] [10]  ukkonen [1–10, 12–15] [2, 3, 14] [9]  nutalis [2, 3, 4, 5, 9] [2, 3, 4, 5, 9]
Eriophorum humile Turcz.  Eriophorum vaginatum L.  Schoenoplectiella supina (L.) Lye [= Schoenoplectus suping Schoenoplectus lacustris subsp. hippolytii (V.I.Krecz.) Kries [≡ Scirpus hippolyti V.I.Krecz.]  Schoenoplectus tabernaemontani (C.C.Gmel.) Pall.  Schoenoplectus triqueter (L.) Palla [≡ Scirpus triqueter In Scirpus orientalis Ohwi [≡ Scirpus sylvaticus subsp. orientalis Ohwi) Vorosch.]  Scirpus radicans Schkuhr  Trichophorum pumilum (Vahl) Schinz & Thell.  • Droseraceae Salisb. (2 genera and 3 species)	[3, 4] [1, 2, 3, 6, 7] [3] [anus (L.) Pall.] [10] [10] [10] [10] [10] [10] [10] [10
Eriophorum humile Turcz.  Eriophorum vaginatum L.  Schoenoplectiella supina (L.) Lye [= Schoenoplectus supit Schoenoplectus lacustris subsp. hippolytii (V.I.Krecz.) K.  [= Scirpus hippolyti V.I.Krecz.]  Schoenoplectus tabernaemontani (C.C.Gmel.) Pall.  Schoenoplectus triqueter (L.) Palla [= Scirpus triqueter I. Scirpus orientalis Ohwi [= Scirpus sylvaticus subsp. orientalis Ohwi Vorosch.]  Scirpus radicans Schkuhr  Trichophorum pumilum (Vahl) Schinz & Thell.  Droseraceae Salisb. (2 genera and 3 species)  Aldrovanda vesiculosa L.	[3, 4] [1, 2, 3, 6, 7] [3] [anus (L.) Pall.] [10] [10] [10] [10] [10] [10] [10]
Eriophorum humile Turcz. Eriophorum vaginatum L. Schoenoplectiella supina (L.) Lye [= Schoenoplectus supina Schoenoplectus lacustris subsp. hippolytii (V.I.Krecz.) K [= Scirpus hippolyti V.I.Krecz.] Schoenoplectus tabernaemontani (C.C.Gmel.) Pall. Schoenoplectus triqueter (L.) Palla [= Scirpus triqueter I Scirpus orientalis Ohwi [= Scirpus sylvaticus subsp. orientalis Ohwi) Vorosch.] Scirpus radicans Schkuhr Trichophorum pumilum (Vahl) Schinz & Thell.  Droseraceae Salisb. (2 genera and 3 species) Aldrovanda vesiculosa L. Drosera anglica Huds. Drosera rotundifolia L.	[3, 4] [1, 2, 3, 6, 7] [3] [anus (L.) Pall.] [10] [10] [10] [10] [2] [10] [10] [10] [2]
Eriophorum humile Turcz.  Eriophorum vaginatum L.  Schoenoplectiella supina (L.) Lye [= Schoenoplectus supinal Schoenoplectus lacustris subsp. hippolytii (V.I.Krecz.) King [= Scirpus hippolyti V.I.Krecz.]  Schoenoplectus tabernaemontani (C.C.Gmel.) Pall.  Schoenoplectus triqueter (L.) Palla [= Scirpus triqueter In Scirpus orientalis Ohwi [= Scirpus sylvaticus subsp. orien (Ohwi) Vorosch.]  Scirpus radicans Schkuhr  Trichophorum pumilum (Vahl) Schinz & Thell.  Droseraceae Salisb. (2 genera and 3 species)  Aldrovanda vesiculosa L.  Drosera anglica Huds.	[3, 4] [1, 2, 3, 6, 7] [3] [anus (L.) Pall.] [10] [10] [10] [10] [2] [10] [10] [10] [2]

48.

49.

Hippophae rhamnoides StLag. subsp. mongolica Rousi	6 7 10 11 12
	6, 7, 10, 11, 13]
Hippophae rhamnoides StLag. subsp. turkestanica Rousi [≡ Hippophae turkestanica (Rousi) Tzvelev]	[14]
[- IIIppopisae varkesvanica (Rousi) Izveiev]	[14]
<b>50. Ericaceae</b> Durande (12 genera and 27 taxa)	
Arctostaphylos uva-ursi (L.) Spreng.	[2]
Arctous alpina (L.) Nied. [= Arbutus alpina L.]	[1, 3, 6, 10]
Cassiope ericoides D.Don	[4]
Chamaedaphne calyculata (L.) Moench	[1-3, 6, 7, 13]
Empetrum nigrum L. subsp. nigrum	[1, 2, 3, 4]
Empetrum nigrum subsp. sibiricum (V.N.Vassil.) Kuvaev	
[≡ Empetrum sibiricum V.N.Vassil.]	[1, 2, 3, 4, 6, 7]
Moneses uniflora A.Gray	[1, 2, 4, 7]
Monotropa hypopitys L.	[1, 3, 4]
Orthilia obtusata (Turcz.) H.Hara [≡ Pyrola secunda var.	
obtusata Turcz.]	[1, 2, 3, 4, 6, 7]
Orthilia secunda (L.) House [ $\equiv Pyrola$ secunda L]	[1, 2, 3, 4, 7]
Phyllodoce caerulea (L.) Bab. $[\equiv Andromeda\ caerulea\ L.]$	[1]
Pyrola asarifolia subsp. incarnata (DC.) A.E.Murray	
[≡ <i>Pyrola rotundifolia</i> var. <i>incarnata</i> (DC.) A.P.Khokhr.]	[1-7, 9]
Pyrola chlorantha Sw.	[1, 4]
Pyrola daurica Kom.	[1, 4, 5, 7, 9]
Pyrola media Sw.	[3, 4]
Pyrola minor L.	[2]
Pyrola rotundifolia L.	[1, 2, 3, 4, 7]
Rhododendron adamsii Rehder	[1, 3]
Rhododendron aureum Georgi	[1, 2]
Rhododendron dauricum L.	[1, 2, 3, 4, 5]
Rhododendron lapponicum (L.) Wahlenb.	[1, 2, 3]
Rhododendron ledebourii Pojark. [≡ Rhododendron dauricum s	ubsp.
ledebourii (Pojark.) Alexandrova & P.A.Schmidt]	[1, 3]
Rhododendron tomentosum Harmaja [ $\equiv$ Ledum palustre L.,	
= Ledum palustre var. decumbens Aiton]	[1, 2, 3, 4]
Vaccinium microcarpum (Turcz.) Schmalh.	
[≡ Oxycoccus microcarpus Turcz.]	[1, 2]
Vaccinium myrtillus L. $[\equiv Vitis-idaea myrtillus (L.) Moench]$	[1, 2]
Vaccinium uliginosum L.	[1, 2, 3, 4, 6]
Vaccinium vitis-idaea L. [≡ Vitis-idaea vitis-idaea (L.) Britton]	[1, 2, 3, 4, 5, 6]
51. Euphorbiaceae Juss. (1 genus and 15 species)	
Euphorbia alpina C.A.Mey.	[7]
Euphorbia caesia Kar. & Kir.	[7]

	Euphorbia esula L. [= Euphorbia discolor Ledeb.]	[1–5, 8, 9, 12]
	Euphorbia fischeriana Steud.	[4, 5, 9]
	Euphorbia humifusa Willd.	[3, 4, 7-16]
	Euphorbia kozlovii Prokh.	[8, 10, 12, 13, 16]
	Euphorbia macrorhiza Ledeb.	[6, 7]
	Euphorbia mongolica Prokh.	[3, 6, 7, 10-13]
	Euphorbia pachyrhiza Kar. & Kir.	[7]
	Euphorbia pilosa L.	[7]
	Euphorbia potaninii Prokh.	[3, 6, 7, 10, 13]
	Euphorbia soongarica Boiss. [≡ Galarhoeus soongaricus (Bo	oiss.) Prokh.] [7]
	Euphorbia subcordata C.A.Mey.	[3, 6, 7, 10, 14]
	Euphorbia tshuiensis (Prokh.) Serg.	[6, 7, 10]
	Euphorbia virgata Waldst. & Kit. [≡ Galarhoeus virgatus	
	(Waldst. & Kit.) Prokh.]	[4, 8]
	<b>52. Fabaceae</b> Lindl. (24 genera and 328 taxa)	
-	Alhagi maurorum Medik.	[14, 15, 16]
	Alhagi pseudalhagi subsp. kirghisorum (Schrenk) Yakovl.	[14, 17, 10]
	[= Alhagi sparsifolia Shap.]	[14, 15]
SE	Ammopiptanthus mongolicus (Maxim.) S.H.Cheng	[14, 15, 16]
SE	Astragalus admirabilus Pjak & E.Pjak	[7]
	Astragalus adsurgens Pall.	[1–13]
	Astragalus agrestis Douglas ex G.Don	[7, 10]
	Astragalus aksaicus Schischk.	[7, 10]
SE	Astragalus alaschanus Bunge	[13]
	Astragalus alberti Bunge	[10, 11]
	Astragalus albicans Bong.	[14]
	Astragalus alpinus L.	[1, 2, 7, 9, 13]
	Astragalus altaicola Podlech	[6, 7, 14]
	Astragalus ammodytes Pall.	[10, 14]
	Astragalus ankylotus Fisch. & C.A.Mey.	[7, 14]
	Astragalus arcuatus Kar. & Kir.	[14]
	Astragalus argutensis Bunge	[4, 6, 7, 8]
	Astragalus arkalycensis Bunge	[6, 7, 14]
	Astragalus austro-sibiricus Schischk.	[1, 3, 6, 7, 8, 13]
SE	Astragalus baitagensis Sanchir	[14]
OL	Astragalus beketowii (Krassn.) B.Fedtsch.	[6]
	Astragalus borodinii Krasnob.	[7, 14]
	Astragalus brachybotrys Bunge	[6, 7, 10–14]
	Astragalus brevifolius Ledeb.	[1-4, 6-8, 10-13]
SE	Astragalus burtschumensis Sumnev.	[6, 7, 10]
	Astragalus candidissimus Ledeb.	[7, 14]
E	Astragalus chamonobrychis Podlech	[7, 11]
	V	

E	Astragalus changaicus Sanchir	[3, 7]
	Astragalus chinensis L.f.	[5, 9]
SE	Astragalus chorinensis Bunge [= Astragalus pseudochorinen	usis N.Ulziykh.]
		[2, 3, 4]
E	Astragalus chubsugulicus Gontsch. ex N.Ulziykh.	[1]
	Astragalus compressus Ledeb.	[7]
	Astragalus confertus Benth.	[3, 7]
	Astragalus consanguineus Bong. & C.A.Mey.	[10]
	Astragalus contortuplicatus L.	[14]
	Astragalus dahuricus Patrin	[3–5, 8–10, 12]
	Astragalus danicus Retz.	[1,4]
	Astragalus depauperatus Ledeb.	[3, 6, 7]
	Astragalus dilutus Bunge	[3, 6, 7, 10, 12–14]
	Astragalus dschimensis Gontsch.	[7, 14]
		6, 7, 10, 12, 14–16]
	Astragalus filiformis (DC.) Poir. [ $\equiv Oxytropis$ filiformis DC	
	Astragalus follicularis Pall.	[3]
	Astragalus frigidus A.Gray	[1–3, 6, 7, 13]
	Astragalus fruticosus Pall.	[2, 3, 4, 9, 13]
	Astragalus galactites Pall.	[1-5, 8, 9]
	Astragalus glomeratus Ledeb.	[3, 7, 13]
E	Astragalus gobicus Hanelt & Davaz.	[14, 15]
E	Astragalus granitovii Sanchir	[7, 14]
SE	Astragalus gregorii B. Fedtsch. & Basil.	[7]
SE	Astragalus grubovii Sanchir [= Astragalus alaschanensis H.	
SE	Astragalus grum-grshimailoi Palib.	[7]
E	Astragalus gubanovii N.Ulziykh.	[7, 10]
SE	Astragalus habaheensis Y.X.Liou	[14]
SE	Astragalus hamiensis S.B.Ho [= Astragalus banzragczii N.U	
SE	Astragalus hsinbaticus P.Y.Fu & Y.A.Chen	
02	[= Astragalus quasitesticulatus Barratte & Z.Y.Chu]	[9]
	Astragalus hypogaeus Ledeb.	[3, 6, 7, 10]
	Astragalus inopinatus Boriss.	[1–5, 7–9, 13]
SE	Astragalus junatovii Sanchir	[12, 13, 15, 16]
	Astragalus kasachstanicus Golosk.	[7]
	Astragalus kaufmannii Krylov	[1,3]
E	Astragalus kenteicus N.Ulziykh.	[2]
	Astragalus klementzii N.Ulziykh.	[3]
E	Astragalus koslovii B.Fedtsch. & N.Basil.	[13]
L	Astragalus kurtschumensis Bunge	[7, 10]
	Astragalus laguroides Pall. [= Astragalus gobi-altaicus N.Ul	
	11.01	[2–4, 6–8, 10–13]
	Astragalus lasiopetalus Bunge	[7, 14]
	1 1001 organius misropermuns Dulle	[/, 14]

	Astragalus laxmannii Jacq.	[7, 10, 14]
	Astragalus lepsensis Bunge	[7]
	Astragalus leptostachys Pall. [= Astragalus macropterus DC.	
	= Astragalus multicaulis Ledeb.]	[1, 3, 6, 7, 13]
SE	Astragalus lupulinus Pall.	[3, 4, 7, 11–14, 16]
SE	Astragalus luxurians Bunge	[7]
	Astragalus macrolobus M.Bieb.[= Astragalus macrocerus C.A	A.Mey.] [7, 10, 11]
	Astragalus macrotrichus E.Peter	[7, 10, 12, 14–16]
	Astragalus majevskianus Krylov	[7]
	Astragalus megalanthus DC.	[8, 12]
	Astragalus melilotoides Pall.	[2, 3, 4, 8–13, 16]
	Astragalus miniatus Bunge	[3, 4, 8, 9, 11-13]
	Astragalus mongholicus Bunge [= Astragalus membranaceus	Fisch.
	= Astragalus propinquus Schischk.]	[1-11, 13]
	Astragalus monophyllus Bunge	[6–16]
	Astragalus norvegicus Weber	[1, 2]
SE	Astragalus ochrias Bunge	[12, 14, 15, 16]
	Astragalus onobrychis L.	[10]
	Astragalus ortholobus Bunge	[7]
	Astragalus oxyglottis Steven	[7, 14]
	Astragalus pallasii Spreng. [= Astragalus lasiophyllus Ledeb.	[14]
SE	Astragalus pavlovii B.Fedtsch. & Basil.	[13–16]
	Astragalus peterae Tsai & Yu	[6, 10]
	Astragalus physocarpus Ledeb.	[7]
SE	Astragalus politovii Krylov	[7]
SE	Astragalus polozhiae Timokhina	[6, 7]
SE	Astragalus pseudoborodinii S.B.Ho [= Astragalus baischinticus	N.Ulziykh.] [14]
	Astragalus pseudobrachytropis Gontsch.	[6]
E	Astragalus pseudotesticulatus Sanchir	[7]
E	Astragalus pseudovulpinus Sanchir	[14]
	Astragalus puberulus Ledeb. [≡ Craccina puberula (Ledeb.)	Steven]
		[7, 10, 11, 13, 14]
	Astragalus roseus Ledeb.	[7, 14]
	Astragalus rudolffii N.Ulziykh.	[7, 14]
	Astragalus rytidocarpus Ledeb.	[2, 3, 7]
	Astragalus sabuletorum Ledeb.	[7, 14, 15]
E	Astragalus saichanensis Sanchir	[7, 13]
E	Astragalus sanczirii N.Ulziykh.	[7, 14]
SE	Astragalus saralensis Gontsch.	[1]
	Astragalus scaberrimus Bunge	[2-4, 8, 9, 12]
	Astragalus scabrisetus Bong.	[15]
	Astragalus schanginianus Pall.	[7]
	Astragalus schrenkianus Fisch. & C.A.Mey.	[7]

	Astragalus scleropodius Ledeb.	[7]
	Astragalus secundus DC.	
	[≡ Astragalus frigidus subsp. secundus (DC.) Voro	ra
	Astragalus sphaerocystis Bunge	[7]
	Astragalus stenoceras C.A.Mey.	[10]
	Astragalus suffruticosus DC.	[1-4, 7, 8, 13]
_	Astragalus sulcatus L.	[7, 10, 11, 13, 14]
E	Astragalus tamiricus N.Ulziykh.	[3]
	Astragalus tenuis Turcz. [≡ Astragalus melilotoides Pall.	
	tenuis (Turcz.) Ledeb.]	[1, 2, 3, 5, 8, 9]
	Astragalus tephrolobus Bunge	[7]
	Astragalus tibetanus Benth.	[7, 10, 11, 14, 15]
	Astragalus tschujensis Bunge	[7]
	Astragalus tulinovii B.Fedtsch.	[7]
SE	Astragalus tuvinicus Timokhina	[7, 14]
	Astragalus uliginosus L.	[1-5, 8]
E	Astragalus ulziykhutagii Sytin [= Astragalus alexandrii	N.Ulziykh.] [7]
	Astragalus urunguensis N.Ulziykh.	[14]
SE	Astragalus vallestris Kamelin	[3, 7, 10–14]
	Astragalus variabilis Bunge	[7, 11–16]
	Astragalus versicolor Pall. [= Astragalus alexandrii N.U	Ilziykh. nom. illegit.]
		[1, 2, 3, 4, 6]
E	Astragalus viridiflavus N.Ulziykh.	[1, 2, 3, 4]
	Astragalus xanthotrichos Ledeb.	[7]
SE	Astragalus yumenensis S.B.Ho	[14, 15]
SE	Astragalus zacharensis Bunge	[9]
	Astragalus zaissanensis Sumnev.	[7]
	Caragana arborescens Lam.	[1, 3, 10]
	Caragana brachypoda Pojark.	[12, 13, 16]
	Caragana bungei Ledeb.	[3, 6, 7, 10, 11, 13–15]
SE	Caragana davazamcii Sanchir [≡ Caragana korshinskii	var. davazamcii (Sanchir)
	Yakovlev]	[9, 11–13, 16]
E	Caragana gobica Sanczir	[7, 12, 13, 14]
	Caragana halodendron (Pall.) Dum.Cours.	
	$[\equiv Halimodendron\ halodendron\ (Pall.)\ Voss.]$	[7, 10, 14, 15]
	Caragana jubata Poir.	[1, 2, 3, 7, 13]
SE	Caragana korshinskii Kom.	[9, 11–13, 16]
	Caragana leucophloea Pojark.	[3, 4, 6–8, 10–16]
	Caragana microphylla Lam.	[2, 3, 4, 8, 9]
	Caragana pygmaea (L.) DC. [≡ Robinia pygmaea L.]	[1-14]
	Caragana spinosa (L.) Vahl	[4, 6–8, 10, 11, 14, 16]
	Caragana stenophylla Pojark.	[3–5, 8, 9, 12, 13]
SE	Caragana tibetica Kom.	[12, 13, 16]

	Chesneya ferganensis Korsh. [≡ Chesniella ferganensis (Korsh.) Boriss.] [15]
SE	Chesneya mongolica Maxim. [10–13, 15, 16]
SE	Chesniella macrantha (W.C.Cheng ) L.Duan, J.Wen & Zhao Y.Chang
	[= Spongiocarpella grubovii (N.Ulziykh.) Yakovlev] [15, 16]
	Cicer songaricum Steph. [7]
	Corethrodendron fruticosum (Pall.) B.H.Choi & H.Ohashi
	$[\equiv Hedysarum fruticosum Pall.] $ [3, 4, 5, 8–13, 16]
	Corethrodendron scoparium (Fisch. & C.A.Mey.) Fisch. & Basiner
	[≡ <i>Hedysarum scoparium</i> Fisch. & C.A.Mey.
	= Hedysarum arbuscula Maxim.] [15, 16]
	Glycyrrhiza aspera Pall. [10, 14]
	Glycyrrhiza glabra L. [= Glycyrrhiza alaschanica Grankina] [10, 12, 14, 15, 16]
SE	Glycyrrhiza inflata Batalin [7, 15, 16]
	Glycyrrhiza pallidiflora Maxim. [9]
SE	Glycyrrhiza squamulosa Franch. [12, 14]
	Glycyrrhiza uralensis Fisch. [= Glycyrrhiza gobica Grankina
	= Glycyrrhiza soongorica Grankina] [2–5, 8–16]
	Gueldenstaedtia monophylla Fisch. [6, 7, 10, 12, 13, 16]
	Gueldenstaedtia verna (Georgi) Boriss.
	[= Gueldenstaedtia stenophylla Bunge] [1, 2, 4, 5, 9]
	Hedysarum alpinum L. [ $\equiv$ Echinolobium alpinum (L.) Desv.] [1–7, 9]
	Hedysarum austrosibiricum B.Fedtsch.
	$[\equiv Hedysarum\ hedysaroides\ subsp.\ austrosibiricum\ (B.Fedtsch.)\ Jurtzev][3, 6, 7]$
	Hedysarum brachypterum Bunge [2, 9]
SE	Hedysarum chalchorum N.Ulziykh. [3, 4, 8]
	Hedysarum consanguineum DC. [7]
	Hedysarum dahuricum Turcz. [≡ Hedysarum gmelinii var.
	dahuricum (Turcz.) R.Sha] [1, 3–10, 13]
	Hedysarum ferganense Korsh. [1–4, 6–11, 13, 14, 16]
	Hedysarum ferganense Korsh.       [1-4, 6-11, 13, 14, 16]         Hedysarum gmelinii Ledeb.       [1-4, 6, 7, 9, 10, 13]
	Hedysarum gmelinii Ledeb. [1–4, 6, 7, 9, 10, 13]
	Hedysarum gmelinii Ledeb. [1–4, 6, 7, 9, 10, 13] Hedysarum hedysaroides subsp. arcticum (B.Fedtsch.) P.W.Ball
	Hedysarum gmelinii Ledeb. [1–4, 6, 7, 9, 10, 13]  Hedysarum hedysaroides subsp. arcticum (B.Fedtsch.) P.W.Ball  [≡ Hedysarum arcticum B.Fedtsch.] [1, 3, 6, 7]
	Hedysarum gmelinii Ledeb.[1–4, 6, 7, 9, 10, 13]Hedysarum hedysaroides subsp. arcticum (B.Fedtsch.) P.W.Ball[≡ Hedysarum arcticum B.Fedtsch.][1, 3, 6, 7]Hedysarum iliense B.Fedtsch.[7]
	Hedysarum gmelinii Ledeb.[1–4, 6, 7, 9, 10, 13]Hedysarum hedysaroides subsp. arcticum (B.Fedtsch.) P.W.Ball[≡ Hedysarum arcticum B.Fedtsch.][1, 3, 6, 7]Hedysarum iliense B.Fedtsch.[7]Hedysarum inundatum Turcz.[1–3, 6, 7, 10, 13]
	Hedysarum gmelinii Ledeb.[1–4, 6, 7, 9, 10, 13]Hedysarum hedysaroides subsp. arcticum (B.Fedtsch.) P.W.Ball[≡ Hedysarum arcticum B.Fedtsch.][1, 3, 6, 7]Hedysarum iliense B.Fedtsch.[7]Hedysarum inundatum Turcz.[1–3, 6, 7, 10, 13]Hedysarum kamelinii N.Ulziykh.[7]Hedysarum krylovii Sumn.[7]Hedysarum lintschevskyi Bajtenov[7, 13]
	Hedysarum gmelinii Ledeb.[1–4, 6, 7, 9, 10, 13]Hedysarum hedysaroides subsp. arcticum (B.Fedtsch.) P.W.Ball[≡ Hedysarum arcticum B.Fedtsch.][1, 3, 6, 7]Hedysarum iliense B.Fedtsch.[7]Hedysarum inundatum Turcz.[1–3, 6, 7, 10, 13]Hedysarum kamelinii N.Ulziykh.[7]Hedysarum krylovii Sumn.[7]
	Hedysarum gmelinii Ledeb.[1–4, 6, 7, 9, 10, 13]Hedysarum hedysaroides subsp. arcticum (B.Fedtsch.) P.W.Ball[≡ Hedysarum arcticum B.Fedtsch.][1, 3, 6, 7]Hedysarum iliense B.Fedtsch.[7]Hedysarum inundatum Turcz.[1–3, 6, 7, 10, 13]Hedysarum kamelinii N.Ulziykh.[7]Hedysarum krylovii Sumn.[7]Hedysarum lintschevskyi Bajtenov[7, 13]Hedysarum neglectum Ledeb.[1, 2, 3, 6, 7]Hedysarum roseum Sims[2, 3, 4]
	Hedysarum gmelinii Ledeb.[1-4, 6, 7, 9, 10, 13]Hedysarum hedysaroides subsp. arcticum (B.Fedtsch.) P.W.Ball[≡ Hedysarum arcticum B.Fedtsch.][1, 3, 6, 7]Hedysarum iliense B.Fedtsch.[7]Hedysarum inundatum Turcz.[1-3, 6, 7, 10, 13]Hedysarum kamelinii N.Ulziykh.[7]Hedysarum krylovii Sumn.[7]Hedysarum lintschevskyi Bajtenov[7, 13]Hedysarum neglectum Ledeb.[1, 2, 3, 6, 7]Hedysarum roseum Sims[2, 3, 4]Hedysarum sajanicum N.Ulziykh.[1]
SE	Hedysarum gmelinii Ledeb.[1-4, 6, 7, 9, 10, 13]Hedysarum hedysaroides subsp. arcticum (B.Fedtsch.) P.W.Ball[1, 3, 6, 7][≡ Hedysarum arcticum B.Fedtsch.][1, 3, 6, 7]Hedysarum iliense B.Fedtsch.[7]Hedysarum inundatum Turcz.[1-3, 6, 7, 10, 13]Hedysarum kamelinii N.Ulziykh.[7]Hedysarum krylovii Sumn.[7]Hedysarum lintschevskyi Bajtenov[7, 13]Hedysarum neglectum Ledeb.[1, 2, 3, 6, 7]Hedysarum roseum Sims[2, 3, 4]Hedysarum sajanicum N.Ulziykh.[1]Hedysarum sangilense Krasnob. & Timokhina[1, 3]
SE	Hedysarum gmelinii Ledeb.[1-4, 6, 7, 9, 10, 13]Hedysarum hedysaroides subsp. arcticum (B.Fedtsch.) P.W.Ball[≡ Hedysarum arcticum B.Fedtsch.][1, 3, 6, 7]Hedysarum iliense B.Fedtsch.[7]Hedysarum inundatum Turcz.[1-3, 6, 7, 10, 13]Hedysarum kamelinii N.Ulziykh.[7]Hedysarum krylovii Sumn.[7]Hedysarum lintschevskyi Bajtenov[7, 13]Hedysarum neglectum Ledeb.[1, 2, 3, 6, 7]Hedysarum roseum Sims[2, 3, 4]Hedysarum sajanicum N.Ulziykh.[1]

	<i>Lathyrus humilis</i> (Ser.) Fisch. [≡ <i>Orobus humilis</i> Ser.]	[1–5, 8, 9]
	Lathyrus ledebourii Trautv.	[7]
	Lathyrus palustris L. subsp. pilosus (Cham.) Hultén	[1–5, 8, 9, 10, 14]
	Lathyrus pisiformis L.	[5, 9]
	Lathyrus pratensis L.	[2, 3, 4, 10]
	Lathyrus quinquenervius (Miq.) Litv.	[3, 4, 5]
	Lespedeza bicolor Turcz.	[5]
	Lespedeza daurica (Laxm.) Schindl. [≡ Trifolium dauri	
		[2–5, 8, 9, 11–13, 16]
	Lespedeza juncea (L.f.) Pers.	[2-5, 8, 9]
	Lespedeza tomentosa Siebold	[5, 9]
	Lotus krylovii Schischk. & Serg.	[7, 9, 10, 12, 14–16]
	Medicago falcata L.	[2–12, 14]
	Medicago lupulina L.	[2–5, 7–11, 13, 14]
	Medicago platycarpa (L.) Trautv.	[1, 2, 3, 4, 7, 9]
	Medicago ruthenica Trautv.	[1–5, 8–11, 13, 14]
	Melilotus dentatus (Waldst. & Kit.) Pers.	[2–5, 7–12, 14]
	Melilotus officinalis (L.) Lam.	[2, 3, 4]
	Melilotus suaveolens Ledeb. [≡ Trigonella suaveolens (Led	2
		[1, 3-14]
	Melilotus wolgicus Poir.	[9, 12]
	Onobrychis arenaria (Kit.) DC. subsp arenaria	[2, 3, 4, 8]
	Onobrychis arenaria subsp. sibirica (Turcz.) P.W.Ball	
	[≡ Onobrychis sibirica (Sirj.) Turcz.]	[2, 3, 4, 13]
SE	Oxytropis acanthacea Jurtzev	[6, 7]
-	Oxytropis aciphylla Ledeb.	[3, 6, 7, 10–16]
SE	Oxytropis alpestris Schischk.	[7]
0.23	Oxytropis alpicola Turcz.	[2]
	Oxytropis alpina Bunge	[1, 2, 3, 6, 7, 13]
	Oxytropis altaica (Pall.) Pers.	[6, 7]
	Oxytropis ambigua (Pall.) DC.	[1, 2, 3, 4, 7, 13]
	Oxytropis ampullata (Pall.) Pers.	[2, 3, 7–9, 12, 13]
SE	Oxytropis baicalia (Pall.) Pers.	[1, 3, 4]
SE	Oxytropis bicolor Bunge	[9]
0.2	Oxytropis brachycarpa Vassilcz.	[7]
Е	Oxytropis bungei Kom.	[3, 6, 7, 8, 10-14]
2	Oxytropis caerulea DC.	[1, 2, 4, 5, 9]
	Oxytropis caespitosa Pers.	[1, 2, 3, 4, 5, 8]
	Oxytropis campanulata Vassilcz.	[1, 2, 3, 1, 3, 3]
	Oxytropis chionophylla Schrenk	[3, 6, 7, 13]
	Oxytropis deflexa (Pall.) DC.	[1-4, 6, 7, 10, 13]
	Oxytropis diantha Bunge [= Oxytropis changaica B.Fed	
SE	Oxytropis dubia Turcz.	[2]
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CE	Out the discourt of Property	[/ 7]
SE	Oxytropis eriocarpa Bunge	[6, 7]
Г	Oxytropis falcata Bunge	[6,7]
E	Oxytropis fragilifolia N.Ulziykh.	[7, 13]
SE	Oxytropis gebleri Fisch.	[1, 3, 6, 7, 13]
	Oxytropis glabra DC.	[1-4, 6-16]
	Oxytropis glandulosa Turcz.	[1,3]
	Oxytropis glareosa Vassilcz.	[3, 10]
	Oxytropis gorbunovii Boriss.	[3, 6, 7]
	Oxytropis grandiflora DC.	[2, 4, 5, 8, 9]
	Oxytropis hailarensis Kitag.	[5, 9]
SE	Oxytropis heterophylla Bunge	[6, 7, 10, 13, 14]
	Oxytropis hirta Bunge	[5]
SE	Oxytropis intermedia Bunge	[3, 6, 7, 10]
E	Oxytropis junatovii Sanchir	[13]
SE	Oxytropis jurtzevii Malyschev	[1]
E	Oxytropis klementzii N.Ulziykh.	[2, 3, 4, 8]
SE	Oxytropis komarovii Vassilcz.	[5, 9]
SE	Oxytropis kossinskyi B.Fedtsch. & Basil.	[3, 4, 8, 11, 13]
	Oxytropis krylovii Schipcz.	[7]
SE	Oxytropis kusnetzovii Kryl. & Steinb.	[1,7]
0.2	Oxytropis ladyginii Krylov	[7]
	Oxytropis lanata DC.	[1, 3, 4, 8, 9]
SE	Oxytropis lanuginosa Kom.	[3, 10]
0.2	Oxytropis lapponica Gaudin	[3, 6, 7]
	Oxytropis lasiopoda Bunge	[3, 4, 8, 9, 13]
SE	Oxytropis latibracteata Jurtzev	[3]
E	Oxytropis lavrenkoi N.Ulziykh.	[12]
L	Oxytropis leptophylla DC.	[1, 3-5, 8, 9, 12]
SE	Oxytropis leucotricha Turcz.	[1, 2, 3, 8]
OL.	Oxytropis longirostra DC.	[1, 2, 3, 3]
	Oxytropis macrosema Bunge	[6, 7]
SE		
	Oxytropis martjanovii Krylov	[3, 6, 7, 10]
E	Oxytropis micrantha Bunge	[3, 6, 7, 10, 11]
CE	Oxytropis microphylla (Pall.) DC.	[3, 6, 7, 10, 12]
SE	Oxytropis mixotriche Bunge	[2, 3, 4, 8]
SE	Oxytropis mongolica Kom.	[6, 10]
SE	Oxytropis monophylla Grubov	[12, 13]
	Oxytropis muricata (Pall.) DC.	[1, 3, 4, 9, 13]
	Oxytropis myriophylla (Pall.) DC.	[1-5, 8, 9]
SE	Oxytropis nitens Turcz.	[1, 2, 3, 4, 8, 9]
SE	Oxytropis ochrantha Turcz.	[9]
	Oxytropis oligantha Bunge	[3, 6, 7, 10, 13]
	Oxytropis oxyphylla (Pall.) DC.	[1-5, 8, 9, 12]

	Oxytropis pauciflora Bunge	[1, 6, 7, 13]
E	Oxytropis pavlovii B.Fedtsch. & Basil	
SE	Oxytropis physocarpa Ledeb.	[7]
E	Oxytropis potaninii Bunge	[7, 10]
SE	Oxytropis prostrata (Pall.) DC.	[4, 8, 9]
SE	Oxytropis pseudoglandulosa Gontsch.	[1-4, 8, 9, 12, 13]
	Oxytropis puberula Boriss.	[7, 13, 14]
	Oxytropis pumila Fisch.	[3, 6, 7, 8, 10, 11, 13]
	Oxytropis racemosa Turcz. [= Oxytrop	<i>is gracillima</i> Bunge] [3, 4, 6, 8–12]
	Oxytropis recognita Bunge	[6,7]
SE	Oxytropis reverdattoi Jurtzev	[2, 3, 4]
SE	Oxytropis rhizantha Palib.	[6, 7, 10]
	Oxytropis rhynchophysa Schrenk	[6, 7]
SE	Oxytropis sacciformis H.C.Fu	[12]
SE	Oxytropis sajanensis Jurtzev	[1,3]
	Oxytropis saposhnikovii Krylov	[7, 10]
SE	Oxytropis selengensis Bunge	[2, 3, 4, 8, 9]
SE	Oxytropis setosa (Pall.) DC.	[3, 6]
	Oxytropis songorica (Pall.) DC.	[7]
	Oxytropis sordida (Willd.) Pers.	[1]
	Oxytropis squammulosa DC.	[2-4, 6-10, 12, 13]
SE	Oxytropis stenophylla Bunge	[3, 13]
	Oxytropis strobilacea Bunge	[1–4, 6, 7, 13]
SE	Oxytropis stukovii Palib.	[3, 9]
	Oxytropis sulphurea Ledeb.	[7]
E	Oxytropis sutaica N.Ulziykh.	[3, 7]
E	Oxytropis tenuis Palib.	[6, 7]
	Oxytropis teres DC.	[7]
	Oxytropis tragacanthoides Fisch.	[1, 3, 6–8, 10, 11, 13–15]
	Oxytropis trichophysa Bunge	[3, 6, 7, 10, 11, 13, 14]
SE	Oxytropis tschujae Bunge	[1,7]
SE	Oxytropis turczaninovii Jurtzev	[1, 3, 4]
E	Oxytropis ulzijchutagii Sanchir	[7]
SE	Oxytropis varlakovii Serg.	[4, 9]
E	Oxytropis viridiflava Kom.	[1–4, 7–9, 11, 13]
	Sophora alopecuroides L.	[12–16]
	Sophora flavescens Aiton	[5, 9]
	Sphaerophysa salsula (Pall.) DC.	[5, 7, 9–16]
	Thermopsis alpina Ledeb.	[1, 2]
SE	Thermopsis dahurica Czefr.	[2, 4, 5, 9, 12]
	Thermopsis lanceolata R.Br. [= Thermo	psis lanceolata var. glabra (Czefr.) Yakovlev]
_		[1–5, 8, 9, 11, 13]
E	<i>Thermopsis longicarpa</i> N.Ulziykh.	[6, 10]

	Thermopsis mongolica Czefr. [≡ Thermopsis lanceolata var.	
	mongolica (Czefr.) Q.R.Wang & X.Y.Zhu]	[6, 7, 10–14, 16]
SE	Thermopsis przewalskii Czefr.	[9, 13]
	Trifolium eximium Steph.	[1-4, 6-11, 13]
	Trifolium lupinaster L.	[1–9]
	Trifolium pratense L.	[1, 4]
	Trifolium repens L.	[2, 7]
	Trigonella arcuata C.A.Mey.	[7, 14]
	Trigonella cancellata Desf.	[7, 14]
	Vicia amoena Fisch. [= Vicia amoena subsp. sericea (Kitag.)	
	Kamelin & Gubanov]	[1-5, 7, 8, 9]
	Vicia amurensis Oett.	[4, 5, 9]
	Vicia costata Ledeb.	[2-4, 6-14, 16]
	Vicia cracca L.	[1-10, 14]
	Vicia geminiflora Trautv.	[3, 4, 5]
	Vicia japonica A.Gray	[2, 5]
	Vicia macrantha Jurtzev [= Vicia macrantha subsp. olchoner	asis Peschkova]
		[1, 2, 3]
	Vicia megalotropis Ledeb	[1-5, 8, 9]
	Vicia multicaulis Ledeb. [= Vicia nervata Sipliv.]	[1–6, 8, 13]
SE	Vicia olchonensis (Peschkova) O.D.Nikif. [≡ Vicia macranth	na subsp. olchonensis
	Peschkova]	[1, 4]
	Vicia pseudorobus Fisch. & C.A.Mey.	[5, 9]
	Vicia ramuliflora (Maxim.) Ohwi [= Vicia baicalensis (Turc	z.) B.Fedtsch.]
		[2, 3, 4, 5]
	Vicia semenovii B.Fedtsch.	[3, 13]
	Vicia tenuifolia Roth	[3, 6, 7]
SE	<i>Vicia tsydenii</i> Malyshev	[4]
	Vicia unijuga A.Braun	[1–8]
	Vicia venosa Maxim.	[1, 2, 3, 4, 5, 8]
53	<b>6. Frankeniaceae</b> Desv. (1 genus and 2 species)	[4.0]
O.D.	Frankenia pulverulenta L.	[10]
SE	Frankenia tuvinica Lomon.	[10]
54	4. Gentianaceae Juss. (8 genera and 32 taxa)	
	Centaurium pulchellum subsp. meyeri (Bunge) Tzvelev	[7, 10, 13]
	Centaurium pulchellum (Sw.) Hayek subsp. pulchellum	[10, 11, 15]
	Comastoma falcatum (Turcz.) Toyokuni	[1, 6, 7, 13]
	Comastoma malyschevii (Zuev) Zuev [≡ Gentianella malysch	
	Comastoma pulmonarium (Turcz.) Toyokuni	[1, 2, 3, 6]
	Comastoma tenellum (Rottb.) Toyok. [≡ Gentiana tenella Rottl	
	Gentiana algida Pall.	[1–3, 6, 7, 13]
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Gentiana aquatica var. pseudoaquatica (Kusn.) S.Agrawal  [≡ Gentiana pseudoaquatica Kusnezow] [1-4, 6-9, 13]  Gentiana dahurica Fisch. [≡ Dasystephana dahurica (Fisch.) Zuev] [4, 5, 8, 9]  Gentiana decumbems L.f. [≡ Dasystephana decumbens (L.f.) Zuev] [1-11, 13, 14]  Gentiana grandiflora Laxm. [1, 2, 3, 7]  Gentiana leucomelaena Maxim. [≡ Ciminalis leucomelaena (Maxim.) Zuev]  [1-4, 7, 8, 10, 11, 13, 14]  Gentiana macrophylla Pall. [1-7, 9, 13, 14]  Gentiana macrophylla Pall. [1-4, 6-8, 10, 11, 13, 14]  Gentiana macrophylla Pall. [1-7, 9, 13, 14]  Gentiana macrophylla Gentiana prostrata vav. karelinii (Griseb.) Kusn.]  [7]  Gentiana riparia Kar. & Kiv. [7, 14]  Gentiana riparia Kar. & Kiv. [7, 14]  Gentiana riparia Kar. & Kiv. [7, 14]  Gentiana riparia Georgi [1, 3, 6, 7]  Gentiana uniflora Georgi [1, 3, 6, 7]  Gentianalla amarella L. subsp. acuta (Michx.) J.M.Gillett  [≡ Gentiana acuta Michx.] [1-4, 6-9, 13]  Gentianella aurea (L.) Harry Sm. [2, 3, 6, 7, 13]  Gentianella urkestanorum (Gand.) Holub [7, 14]  Gentianopsis barbata (Froel.) Ma [1-11, 13, 14]  Halenia corniculata (L.) Cornaz [≡ Swertia corniculata L.] [1-5, 8, 13]  Lomatogonium carinthiacum (Wulfen) Rchb.  [≡ Swertia carinthiaca Wulfen] [1-4, 6-8, 11, 13]  Lomatogonium carinthiaca Wulfen] [1-4, 6-8, 11, 13]  Lomatogonium rotatum Fr. [1-8, 10, 13, 14]  Swertia banzragezii Sanchir [1-8, 10, 13, 14]  Swertia banzragezii Sanchir [1-8, 10, 13, 14]  Swertia marginata Schrenk [= Swertia komarovii Pissjauk.]  Frodium cibetanum Edeb. [2, 3, 6, 7]  Geranium albiflorum Ledeb. [6, 7, 14]  Geranium albiflorum Ledeb. [2, 3, 6, 7]  Geranium dahuricum DC. [1, 5, 6, 9, 10, 12]  Geranium hartur kerdeb. [1, 5, 6, 9, 10, 12]  Geranium hartur kerdeb. [1, 5, 6, 9, 10, 12]  Geranium pamiricum Ikonn. [14]	Gentiana aquatica L. subsp. aquatica [1	, 2, 3, 6, 7, 8]
Gentiana dahurica Fisch.  ≡ Dasystephana dahurica (Fisch.) Zuev  [4, 5, 8, 9] Gentiana decumbers L.f.  ≡ Dasystephana decumbers (L.f.) Zuev  [1-11, 13, 14] Gentiana grandiflora Laxm.   [1, 2, 3, 7] Gentiana leucomelaena Maxim.  ≡ Ciminalis leucomelaena (Maxim.) Zuev	Gentiana aquatica var. pseudoaquatica (Kusn.) S.Agrawal	
Gentiana decumbens L.f.  ≡ Dasystephana decumbens (L.f.) Zuev  [1-11, 13, 14] Gentiana grandiflora Laxm. [1, 2, 3, 7] Gentiana leucomelaena Maxim.  ≡ Ciminalis leucomelaena (Maxim.) Zuev	[≡ Gentiana pseudoaquatica Kusnezow]	[1–4, 6–9, 13]
Gentiana grandiflora Laxm. [1, 2, 3, 7] Gentiana leucomelaena Maxim. [≡ Ciminalis leucomelaena (Maxim.) Zuev]	Gentiana dahurica Fisch. $[\equiv Dasystephana dahurica (Fisch.) Zuev]$	[4, 5, 8, 9]
Gentiana leucomelaena Maxim. [≡ Ciminalis leucomelaena (Maxim.) Zuev]  [1-4, 7, 8, 10, 11, 13, 14] Gentiana macrophylla Pall. [1-7, 9, 13, 14] Gentiana prostrata Haenke [1-4, 6-8, 10, 11, 13, 14] Gentiana karelinii Griseb. [≡ Gentiana prostrata var. karelinii (Griseb.) Kusn.]  Gentiana riparia Kar. & Kir. [7, 14] Gentiana riparia Kar. & Kir. [7, 14] Gentiana triflora Pall. [2, 4, 5] Gentiana triflora Pall. [2, 4, 5] Gentiana uniflora Georgi [1, 3, 6, 7] Gentianella amrella L. subsp. acuta (Michx.) J.M.Gillett [≡ Gentiana dacuta Michx.] [1-4, 6-9, 13] Gentianella atrata (Bunge) Holub [5] Gentianella aurea (L.) Harry Sm. [2, 3, 6, 7, 13] Gentianella turkestanorum (Gand.) Holub [7, 14] Gentianopsis barbata (Froel.) Ma [1-11, 13, 14] Halenia corniculata (L.) Cornax [≡ Swertia corniculata L.] [1-5, 8, 13] Lomatogonium carinthiacum (Wulfen) Rchb. [≡ Swertia carinthiaca Wulfen] [1-4, 6-8, 11, 13] Lomatogonium rotatum Fr. [1-8, 10, 13, 14] Swertia banzragezii Sanchir [6, 7] Swertia dichotoma L. [≡ Anagallidium dichotomum (L.) Griseb.] [1, 2, 3, 4, 8, 9] Swertia marginata Schrenk [= Swertia komarovii Pissjauk.] [1, 7] Swertia obtusa Ledeb. [2, 4, 12] Erodium stephanianum Willd. [2-5, 7-16] Geranium affine Ledeb. [6, 7, 14] Geranium albiflorum Ledeb. [2, 3, 6, 7] Geranium albiflorum Stephan [7, 10, 14, 15, 16] Geranium dhuricum DC. [1, 5, 6, 9, 10, 12] Geranium krylovii Tzvelev [2, 3, 4] Genanium laetum Ledeb. [2, 3, 4, 4]	Gentiana decumbens L.f. [≡ Dasystephana decumbens (L.f.) Zuev]	[1–11, 13, 14]
[1-4, 7, 8, 10, 11, 13, 14]  Gentiana macrophylla Pall.  Gentiana prostrata Haenke  [1-4, 6-8, 10, 11, 13, 14]  Gentiana karelinii Griseb. [≡ Gentiana prostrata var. karelinii (Griseb.) Kusn.]  Gentiana riparia Kar. & Kir.  [7, 14]  Gentiana riparia Kar. & Kir.  Gentiana triflora Pall.  Gentiana uniflora Georgi  [1, 3, 6, 7]  Gentianella amarella L. subsp. acuta (Michx.) J.M.Gillett  [≡ Gentiana acuta Michx.]  Gentianella atrata (Bunge) Holub  Gentianella atrata (Bunge) Holub  Gentianella turkestanorum (Gand.) Holub  Gentianella turkestanorum (Gand.) Holub  [1-11, 13, 14]  Halenia corniculata (L.) Cornaz [≡ Swertia corniculata L.]  Lomatogonium carinthiacum (Wulfen) Rchb.  [≡ Swertia carinthiaca Wulfen]  Lomatogonium rotatum Fr.  Swertia dichotoma L. [≡ Anagallidium dichotomum (L.) Griseb.]  Swertia dichotoma L. [≡ Anagallidium dichotomum (L.) Griseb.]  Swertia marginata Schrenk [= Swertia komarovii Pissjauk.]  Erodium cicutarium (L.) L'Hér.  Erodium stephanianum Willd.  Erodium tibetanum Edgew. & Hook.f.  Geranium abiflorum Ledeb.  Geranium abiflorum Ledeb.  Geranium affine Ledeb.  Geranium dolinum Stephan  Geranium delumricum DC.  Geranium krylovii Tovelev  [2, 3, 4, 14]  Genanium laetum Ledeb.  [2, 3, 4, 14]	Gentiana grandiflora Laxm.	[1, 2, 3, 7]
Gentiana macrophylla Pall. Gentiana prostrata Haenke [1-4, 6-8, 10, 11, 13, 14] Gentiana prostrata Haenke [1-4, 6-8, 10, 11, 13, 14] Gentiana karelinii Griseb. [≡ Gentiana prostrata var. karelinii (Griseb.) Kusn.]  [7] Gentiana riparia Kar. & Kir. [7] Gentiana squarrosa Ledeb. [≡ Ciminalis squarrosa (Ledeb.) Zuev] [1-11] Gentiana triflora Pall. [2, 4, 5] Gentiana uniflora Georgi [1, 3, 6, 7] Gentianella amarella L. subsp. acuta (Michx.) J.M.Gillett [≡ Gentiana acuta Michx.] [1-4, 6-9, 13] Gentianella atrata (Bunge) Holub [5] Gentianella aurea (L.) Harry Sm. [2, 3, 6, 7, 13] Gentianella turkestanorum (Gand.) Holub [7, 14] Gentianopsis barbata (Froel.) Ma Halenia corniculata (L.) Cornaz [≡ Swertia corniculata L.] Lomatogonium carinthiacum (Wulfen) Rchb. [≡ Swertia carinthiaca Wulfen] [1-4, 6-8, 11, 13] Lomatogonium rotatum Fr. [1-8, 10, 13, 14] Swertia banzragozii Sanchir [6, 7] Swertia dichotoma L. [≡ Anagallidium dichotomum (L.) Griseb.] Swertia marginata Schrenk [≡ Swertia komarovii Pissjauk.] Frodium cicutarium (L.) L'Hér. Frodium stephanianum Willd. Frodium tibetanum Edgew. & Hook.f. Geranium stephanianum Willd. Geranium affine Ledeb. [6, 7, 14] Geranium dalbiflorum Ledeb. [2, 3, 6, 7] Geranium dalbiflorum Stephan [7, 10, 14, 15, 16] Geranium dalbiroum Stephan Geranium krylovii Tzvelev [2, 3, 4] Genanium laetum Ledeb. [1, 5, 6, 9, 10, 12]	Gentiana leucomelaena Maxim. [≡ Ciminalis leucomelaena (Maxi	im.) Zuev]
Gentiana prostrata Haenke Gentiana karelinii Griscb.  ≡ Gentiana prostrata var. karelinii (Griscb.) Kusn.]  Gentiana riparia Kar. & Kir. Gentiana squarrosa Ledeb.  ≡ Ciminalis squarrosa (Ledeb.) Zuev] Gentiana triflora Pall. Gentiana uniflora Georgi [2, 4, 5] Gentiana duniflora Georgi [1, 3, 6, 7] Gentianella amarella L. subsp. acuta (Michx.) J.M.Gillett  [≡ Gentiana duniflora Georgi Gentianella atrata (Bunge) Holub [5] Gentianella atrata (Bunge) Holub Gentianella turkestanorum (Gand.) Holub Gentianella turkestanorum (Gand.) Holub [7, 14] Gentianella turkestanorum (Wulfen) Rchb. [≡ Swertia corniculata (L.) Cornaz [≡ Swertia corniculata L.] Lomatogonium carinthiacum (Wulfen) Rchb.  [≡ Swertia carinthiaca Wulfen] Swertia banzragczii Sanchir Swertia banzragczii Sanchir Swertia dichotoma L. [≡ Anagallidium dichotomum (L.) Griseb.] Swertia marginata Schrenk [≡ Swertia komarovii Pissjauk.] Swertia obtusa Ledeb.  Erodium cicutarium (L.) L'Hér. Erodium stephanianum Willd. Erodium stephanianum Willd. Geranium albiflorum Ledeb. Geranium albiforum Ledeb. Geranium albiforum Ledeb. Geranium albiforum Ledeb. Geranium albiforum Stephan Geranium dahuricum DC. Geranium krylovii Tzvelev Geranium laetum Ledeb. [1, 5, 6, 9, 10, 12] Geranium laetum Ledeb. [2, 3, 4, 7]	[1-4, 7, 8, 1	0, 11, 13, 14]
Gentiana karelinii Griseb. [≡ Gentiana prostrata var. karelinii (Griseb.) Kusn.]  Gentiana riparia Kar. & Kir. [7, 14]  Gentiana squarrosa Ledeb. [≡ Ciminalis squarrosa (Ledeb.) Zuev] [1-11]  Gentiana triflora Pall. [2, 4, 5]  Gentiana uniflora Georgi [1, 3, 6, 7]  Gentiana duniflora Georgi [1, 3, 6, 7]  Gentiana anarella L. subsp. acuta (Michx.) J.M.Gillett  [≡ Gentiana acuta Michx.] [1-4, 6-9, 13]  Gentianella amarel (L.) Harry Sm. [2, 3, 6, 7, 13]  Gentianella turkestanorum (Gand.) Holub [7, 14]  Gentianopsis barbata (Froel.) Ma [1-11, 13, 14]  Halenia corniculata (L.) Cornaz [≡ Swertia corniculata L.] [1-5, 8, 13]  Lomatogonium carinthiacum (Wulfen) Rchb.  [≡ Swertia carinthiaca Wulfen] [1-4, 6-8, 11, 13]  Lomatogonium rotatum Fr. [1-8, 10, 13, 14]  Swertia banzragczii Sanchir [6, 7]  Swertia dichotoma L. [≡ Anagallidium dichotomum (L.) Griseb.] [1, 2, 3, 4, 8, 9]  Swertia marginata Schrenk [≡ Swertia komarovii Pissjauk.] [1, 7]  Swertia obtusa Ledeb. [2, 4, 12]  Erodium stephanianum Willd. [2-5, 7-16]  Erodium stephanianum Willd. [2-5, 7-16]  Geranium stephanianum Eedgew. & Hook.f. [4, 6, 7, 8, 10-16]  Geranium albiforum Ledeb. [2, 3, 6, 7]  Geranium albiforum Stephan [7, 10, 14, 15, 16]  Geranium dahuricum DC. [1, 5, 6, 9, 10, 12]  Geranium keylovii Tzvelev [2, 3, 4]  Geranium laetum Ledeb. [2, 3, 6, 7]	Gentiana macrophylla Pall. [1	-7, 9, 13, 14]
Gentiana riparia Kar. & Kir. [7, 14] Gentiana squarrosa Ledeb. [= Ciminalis squarrosa (Ledeb.) Zuev] [1-11] Gentiana triflora Pall. [2, 4, 5] Gentiana uniflora Georgi [1, 3, 6, 7] Gentianella amarella L. subsp. acuta (Michx.) J.M.Gillett  [= Gentiana acuta Michx.] [1-4, 6-9, 13] Gentianella atrata (Bunge) Holub [5] Gentianella atrata (Bunge) Holub [7, 14] Gentianopsis barbata (Froel.) Ma [1-11, 13, 14] Halenia corniculata (L.) Cornaz [= Swertia corniculata L.] [1-5, 8, 13] Lomatogonium carinthiacum (Wulfen) Rchb.  [= Swertia carinthiaca Wulfen] [1-4, 6-8, 11, 13] Lomatogonium rotatum Fr. [1-8, 10, 13, 14] Swertia banzragczii Sanchir [6, 7] Swertia dichotoma L. [= Anagallidium dichotomum (L.) Griseb.] [1, 2, 3, 4, 8, 9] Swertia marginata Schrenk [= Swertia komarovii Pissjauk.] [1, 7] Swertia obtusa Ledeb. [2, 4, 12] Erodium cicutarium (L.) L'Hér. [2, 4, 12] Erodium stephanianum Willd. [2-5, 7-16] Erodium tibetanum Edgew. & Hook.f. [4, 6, 7, 8, 10-16] Geranium albiforum Ledeb. [6, 7, 14] Geranium albiforum Ledeb. [2, 3, 6, 7] Geranium anurense Tsyren. [3, 4, 9] Geranium dahuricum DC. [1, 5, 6, 9, 10, 12] Geranium krylovii Tzvelev [2, 3, 4] Geranium laetum Ledeb. [2, 3, 4]	Gentiana prostrata Haenke [1–4, 6–8, 1	0, 11, 13, 14]
Gentiana riparia Kar. & Kir. [7, 14] Gentiana squarrosa Ledeb. [≡ Ciminalis squarrosa (Ledeb.) Zuev] [1−11] Gentiana triflora Pall. [2, 4, 5] Gentiana uniflora Georgi [1, 3, 6, 7] Gentianella amarella L. subsp. acuta (Michx.) J.M.Gillett  [≡ Gentiana acuta Michx.] [1−4, 6−9, 13] Gentianella atrata (Bunge) Holub [5] Gentianella aurea (L.) Harry Sm. [2, 3, 6, 7, 13] Gentianella turkestanorum (Gand.) Holub [7, 14] Gentianopsis barbata (Froel.) Ma [1−11, 13, 14] Halenia corniculata (L.) Cornaz [≡ Swertia corniculata L.] [1−5, 8, 13] Lomatogonium carinthiacum (Wulfen) Rchb.  [≡ Swertia carinthiaca Wulfen] [1−4, 6−8, 11, 13] Lomatogonium rotatum Fr. [1−8, 10, 13, 14] Swertia banzragczii Sanchir [6, 7] Swertia dichotoma L. [≡ Anagallidium dichotomum (L.) Griseb.] [1, 2, 3, 4, 8, 9] Swertia marginata Schrenk [≡ Swertia komarovii Pissjauk.] [1, 7] Swertia obtusa Ledeb. [2, 4, 12] Erodium cicutarium (L.) L'Hér. [2, 4, 12] Erodium stephanianum Willd. [2−5, 7−16] Geranium stephanianum Willd. [2−5, 7−16] Geranium albiflorum Ledeb. [2, 3, 6, 7] Geranium albiflorum Ledeb. [2, 3, 6, 7] Geranium amurense Tsyren. [3, 4, 9] Geranium dahuricum DC. [1, 5, 6, 9, 10, 12] Geranium krylovii Tzvelev [2, 3, 4] Geranium laetum Ledeb. [2, 3, 4]	Gentiana karelinii Griseb. [≡ Gentiana prostrata var. karelinii (G	
Gentiana squarrosa Ledeb. [= Ciminalis squarrosa (Ledeb.) Zuev] [1-11] Gentiana triflora Pall. [2, 4, 5] Gentiana uniflora Georgi [1, 3, 6, 7] Gentianella amarella L. subsp. acuta (Michx.) J.M.Gillett [= Gentiana acuta Michx.] [1-4, 6-9, 13] Gentianella atrata (Bunge) Holub [5] Gentianella aurea (L.) Harry Sm. [2, 3, 6, 7, 13] Gentianella turkestanorum (Gand.) Holub [7, 14] Gentianopsis barbata (Froel.) Ma [1-11, 13, 14] Halenia corniculata (L.) Cornaz [= Swertia corniculata L.] [1-5, 8, 13] Lomatogonium carinthiacum (Wulfen) Rchb. [= Swertia carinthiaca Wulfen] [1-4, 6-8, 11, 13] Lomatogonium rotatum Fr. [1-8, 10, 13, 14] Swertia banzragczii Sanchir [6, 7] Swertia dichotoma L. [= Anagallidium dichotomum (L.) Griseb.] [1, 2, 3, 4, 8, 9] Swertia marginata Schrenk [= Swertia komarovii Pissjauk.] [1, 7] Swertia obtusa Ledeb. [2, 6, 7]  55. Geraniaceae Juss. (2 genera and 19 taxa) Erodium cicutarium (L.) L'Hér. [2, 4, 12] Erodium stephanianum Willd. [2-5, 7-16] Geranium stephanianum Ledeb. [2, 3, 6, 7] Geranium albiflorum Ledeb. [2, 3, 6, 7] Geranium amurense Tsyren. [3, 4, 9] Geranium dahuricum DC. [1, 5, 6, 9, 10, 12] Geranium krylovii Tzvelev [2, 3, 4] Geranium laetum Ledeb. [2, 3, 4]	Gentiana riparia Kar. & Kir.	
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Gentianella amarella L. subsp. acuta (Michx.) J.M.Gillett  [≡ Gentiana acuta Michx.] [1-4, 6-9, 13]  Gentianella atrata (Bunge) Holub [5]  Gentianella aurea (L.) Harry Sm. [2, 3, 6, 7, 13]  Gentianella turkestanorum (Gand.) Holub [7, 14]  Gentianopsis barbata (Froel.) Ma [1-11, 13, 14]  Halenia corniculata (L.) Cornaz [≡ Swertia corniculata L.] [1-5, 8, 13]  Lomatogonium carinthiacum (Wulfen) Rchb.  [≡ Swertia carinthiaca Wulfen] [1-4, 6-8, 11, 13]  Lomatogonium rotatum Fr. [1-8, 10, 13, 14]  Swertia banzragczii Sanchir [6, 7]  Swertia dichotoma L. [≡ Anagallidium dichotomum (L.) Griseb.] [1, 2, 3, 4, 8, 9]  Swertia marginata Schrenk [= Swertia komarovii Pissjauk.] [1, 7]  Swertia obtusa Ledeb. [2, 4, 12]  Erodium cicutarium (L.) L'Hér. [2, 4, 12]  Erodium stephanianum Willd. [2-5, 7-16]  Geranium affine Ledeb. [6, 7, 14]  Geranium albiflorum Ledeb. [2, 3, 6, 7]  Geranium anurense Tsyren. [3, 4, 9]  Geranium dahuricum DC. [1, 5, 6, 9, 10, 12]  Geranium krylovii Tzvelev [2, 3, 4]  Geranium laetum Ledeb. [2, 3, 4]	Gentiana triflora Pall.	[2, 4, 5]
[≡ Gentiana acuta Michx.]       [1-4, 6-9, 13]         Gentianella atrata (Bunge) Holub       [5]         Gentianella aurea (L.) Harry Sm.       [2, 3, 6, 7, 13]         Gentianella turkestanorum (Gand.) Holub       [7, 14]         Gentianopsis barbata (Froel.) Ma       [1-11, 13, 14]         Halenia corniculata (L.) Cornaz [≡ Swertia corniculata L.]       [1-5, 8, 13]         Lomatogonium carinthiacum (Wulfen) Rchb.       [≡ Swertia carinthiaca Wulfen]       [1-4, 6-8, 11, 13]         Lomatogonium rotatum Fr.       [1-8, 10, 13, 14]         Swertia banzragczii Sanchir       [6, 7]         Swertia dichotoma L. [≡ Anagallidium dichotomum (L.) Griseb.]       [1, 2, 3, 4, 8, 9]         Swertia marginata Schrenk [= Swertia komarovii Pissjauk.]       [1, 7]         Swertia obtusa Ledeb.       [2, 6, 7]         Erodium cicutarium (L.) L'Hér.       [2, 4, 12]         Erodium stephanianum Willd.       [2-5, 7-16]         Erodium tibetanum Edgew. & Hook.f.       [4, 6, 7, 8, 10-16]         Geranium albiflorum Ledeb.       [2, 3, 6, 7]         Geranium aburense Tsyren.       [3, 4, 9]         Geranium dahuricum DC.       [1, 5, 6, 9, 10, 12]         Geranium krylovii Tzvelev       [2, 3, 4]         Geranium laetum Ledeb.       [3, 7, 14]	Gentiana uniflora Georgi	[1, 3, 6, 7]
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Gentianella turkestanorum (Gand.) Holub $[7, 14]$ Gentianopsis barbata (Froel.) Ma $[1-11, 13, 14]$ Halenia corniculata (L.) Cornaz [ $\equiv$ Swertia corniculata L.] $[1-5, 8, 13]$ Lomatogonium carinthiacum (Wulfen) Rchb. $[1-4, 6-8, 11, 13]$ $\subseteq$ Swertia carinthiaca Wulfen] $[1-4, 6-8, 11, 13]$ Lomatogonium rotatum Fr. $[1-8, 10, 13, 14]$ Swertia banzragczii Sanchir $[6, 7]$ Swertia dichotoma L. $[\equiv$ Anagallidium dichotomum (L.) Griseb.] $[1, 2, 3, 4, 8, 9]$ Swertia marginata Schrenk $[\equiv$ Swertia komarovii Pissjauk.] $[1, 7]$ Swertia obtusa Ledeb. $[2, 6, 7]$ 55. Geraniaceae Juss. (2 genera and 19 taxa) $[2, 4, 12]$ Erodium cicutarium (L.) L'Hér. $[2, 4, 12]$ Erodium stephanianum Willd. $[2-5, 7-16]$ Erodium tibetanum Edgew. & Hook.f. $[4, 6, 7, 8, 10-16]$ Geranium albiflorum Ledeb. $[5, 7, 14]$ Geranium anurense Tsyren. $[3, 4, 9]$ Geranium collinum Stephan $[7, 10, 14, 15, 16]$ Geranium dahuricum DC. $[1, 5, 6, 9, 10, 12]$ Geranium krylovii Tzvelev $[2, 3, 4]$ Geranium laetum Ledeb. $[3, 7, 14]$	Gentianella atrata (Bunge) Holub	[5]
Gentianopsis barbata (Froel.) Ma [1–11, 13, 14] Halenia corniculata (L.) Cornaz [ $\equiv$ Swertia corniculata L.] [1–5, 8, 13] Lomatogonium carinthiacum (Wulfen) Rchb.  [ $\equiv$ Swertia carinthiaca Wulfen] [1–4, 6–8, 11, 13] Lomatogonium rotatum Fr. [1–8, 10, 13, 14] Swertia banzragczii Sanchir [6, 7] Swertia dichotoma L. [ $\equiv$ Anagallidium dichotomum (L.) Griseb.] [1, 2, 3, 4, 8, 9] Swertia marginata Schrenk [ $\equiv$ Swertia komarovii Pissjauk.] [1, 7] Swertia obtusa Ledeb. [2, 6, 7]  55. Geraniaceae Juss. (2 genera and 19 taxa)  Erodium cicutarium (L.) L'Hér. [2, 4, 12] Erodium stephanianum Willd. [2–5, 7–16] Erodium tibetanum Edgew. & Hook.f. [4, 6, 7, 8, 10–16] Geranium affine Ledeb. [6, 7, 14] Geranium anurense Tsyren. [3, 4, 9] Geranium collinum Stephan [7, 10, 14, 15, 16] Geranium dahuricum DC. [1, 5, 6, 9, 10, 12] Geranium krylovii Tzvelev [2, 3, 4] Geranium laetum Ledeb. [2, 3, 4]	Gentianella aurea (L.) Harry Sm.	[2, 3, 6, 7, 13]
Halenia corniculata (L.) Cornaz [ $\equiv$ Swertia corniculata L.] [1-5, 8, 13]Lomatogonium carinthiacum (Wulfen) Rchb.[ $\equiv$ Swertia carinthiaca Wulfen] [1-4, 6-8, 11, 13]Lomatogonium rotatum Fr. [1-8, 10, 13, 14][ $\equiv$ Swertia banzragczii Sanchir [6, 7]Swertia dichotoma L. [ $\equiv$ Anagallidium dichotomum (L.) Griseb.] [1, 2, 3, 4, 8, 9]Swertia marginata Schrenk [ $\equiv$ Swertia komarovii Pissjauk.] [1, 7]Swertia obtusa Ledeb. [2, 6, 7]55. Geraniaceae Juss. (2 genera and 19 taxa)Erodium cicutarium (L.) L'Hér. [2, 4, 12]Erodium stephanianum Willd. [2-5, 7-16]Erodium tibetanum Edgew. & Hook.f. [4, 6, 7, 8, 10-16]Geranium affine Ledeb. [6, 7, 14]Geranium albiflorum Ledeb. [2, 3, 6, 7]Geranium anurense Tsyren. [3, 4, 9]Geranium collinum Stephan [7, 10, 14, 15, 16]Geranium dahuricum DC. [1, 5, 6, 9, 10, 12]Geranium krylovii Tzvelev [2, 3, 4]Geranium laetum Ledeb. [3, 7, 14]	Gentianella turkestanorum (Gand.) Holub	[7, 14]
Lomatogonium carinthiacum (Wulfen) Rchb. $[\equiv Swertia carinthiaca$ Wulfen] $[1-4, 6-8, 11, 13]$ $Lomatogonium rotatum$ Fr. $[1-8, 10, 13, 14]$ $Swertia banzragczii$ Sanchir $[6, 7]$ $Swertia dichotoma$ L. $[\equiv Anagallidium dichotomum$ (L.) Griseb.] $[1, 2, 3, 4, 8, 9]$ $Swertia marginata$ Schrenk $[\equiv Swertia komarovii$ Pissjauk.] $[1, 7]$ $Swertia obtusa$ Ledeb. $[2, 6, 7]$ $Erodium$ cicutarium (L.) L'Hér. $[2, 4, 12]$ $Erodium$ stephanianum Willd. $[2-5, 7-16]$ $Erodium$ tibetanum Edgew. & Hook.f. $[4, 6, 7, 8, 10-16]$ $Geranium$ affine Ledeb. $[6, 7, 14]$ $Geranium$ albiflorum Ledeb. $[2, 3, 6, 7]$ $Geranium$ amurense Tsyren. $[3, 4, 9]$ $Geranium$ dahuricum DC. $[1, 5, 6, 9, 10, 12]$ $Geranium$ krylovii Tzvelev $[2, 3, 4]$ $Geranium$ laetum Ledeb. $[2, 3, 4]$	4	[1-11, 13, 14]
[≡ Swertia carinthiaca Wulfen] [1-4, 6-8, 11, 13]  Lomatogonium rotatum Fr. [1-8, 10, 13, 14]  Swertia banzragczii Sanchir [6, 7]  Swertia dichotoma L. [≡ Anagallidium dichotomum (L.) Griseb.] [1, 2, 3, 4, 8, 9]  Swertia marginata Schrenk [= Swertia komarovii Pissjauk.] [1, 7]  Swertia obtusa Ledeb. [2, 6, 7]  55. Geraniaceae Juss. (2 genera and 19 taxa)  Erodium cicutarium (L.) L'Hér. [2, 4, 12]  Erodium stephanianum Willd. [2-5, 7-16]  Erodium tibetanum Edgew. & Hook.f. [4, 6, 7, 8, 10-16]  Geranium affine Ledeb. [6, 7, 14]  Geranium anurense Tsyren. [3, 4, 9]  Geranium collinum Stephan [7, 10, 14, 15, 16]  Geranium dahuricum DC. [1, 5, 6, 9, 10, 12]  Geranium laetum Ledeb. [2, 3, 4]  Geranium laetum Ledeb. [3, 7, 14]	Halenia corniculata (L.) Cornaz [≡ Swertia corniculata L.]	[1-5, 8, 13]
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Geranium affine Ledeb.       [6, 7, 14]         Geranium albiflorum Ledeb.       [2, 3, 6, 7]         Geranium amurense Tsyren.       [3, 4, 9]         Geranium collinum Stephan       [7, 10, 14, 15, 16]         Geranium dahuricum DC.       [1, 5, 6, 9, 10, 12]         Geranium krylovii Tzvelev       [2, 3, 4]         Geranium laetum Ledeb.       [3, 7, 14]	Erodium stephanianum Willd.	[2-5, 7-16]
Geranium albiflorum Ledeb.       [2, 3, 6, 7]         Geranium amurense Tsyren.       [3, 4, 9]         Geranium collinum Stephan       [7, 10, 14, 15, 16]         Geranium dahuricum DC.       [1, 5, 6, 9, 10, 12]         Geranium krylovii Tzvelev       [2, 3, 4]         Geranium laetum Ledeb.       [3, 7, 14]	Erodium tibetanum Edgew. & Hook.f. [4, 6	5, 7, 8, 10–16]
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Geranium collinum Stephan       [7, 10, 14, 15, 16]         Geranium dahuricum DC.       [1, 5, 6, 9, 10, 12]         Geranium krylovii Tzvelev       [2, 3, 4]         Geranium laetum Ledeb.       [3, 7, 14]	Geranium albiflorum Ledeb.	[2, 3, 6, 7]
Geranium dahuricum DC. [1, 5, 6, 9, 10, 12] Geranium krylovii Tzvelev [2, 3, 4] Geranium laetum Ledeb. [3, 7, 14]	Geranium amurense Tsyren.	[3, 4, 9]
Geranium krylovii Tzvelev [2, 3, 4] Geranium laetum Ledeb. [3, 7, 14]	Geranium collinum Stephan [7, 1	0, 14, 15, 16]
Geranium laetum Ledeb. [3, 7, 14]	Geranium dahuricum DC. [1, 5	6, 6, 9, 10, 12]
	·	[2, 3, 4]
Geranium pamiricum Ikonn. [14]	Geranium laetum Ledeb.	[3, 7, 14]
_	Geranium pamiricum Ikonn.	[14]

Geraniu Geraniu Geraniu Geraniu Geraniu Geraniu	em platyanthum Duthie em pratense L. em pseudosibiricum J.Mayer em saxatile Kar. & Kir. em sibiricum L. em transbaicalicum Serg. em transbaicalicum subsp. turczan em wlassovianum Fisch.	[2, 3, 4, 5, 9, 12] [1–4, 6–9, 12, 13] [1–8, 10, 14] [7, 14] [1–5, 7–10, 12–14, 16] [1,7, 9] inovii (Serg.) Peschkova [3, 4] [1, 2, 3, 4, 5, 9]
56. Grossul	lariaceae DC. (1 genus and 12 ta	nxa)
	9	(Sm.) Spach] [2–4, 6–8, 10, 13, 14]
	acanthum Pall. [=Ribes diacanthu	
	Huang & J.Z.Wang]	[1-5, 8, 9]
	ngrans Pall.	$\begin{bmatrix} 1 & j, 0, j \end{bmatrix}$ $\begin{bmatrix} 1, 2 \end{bmatrix}$
_	aveolens Bunge	[1, 2] $[1, 7]$
_	eterotrichum C.A.Mey.	[6, 7, 10, 14, 15]
_	eyeri Maxim.	[7, 14]
Ribes ni		[1–7, 10, 13]
_ `	s traeum Wulfen [= Ribes altissimur	
	ocumbens Pall.	[1, 3, 7]
_ ^	ılchellum Turcz.	[1–5, 8, 9, 12, 14]
Ribes ru	ebrum L.	[1–7, 9, 13]
Ribes spi	icatum E.Robson	[1–3, 6, 7, 9, 10]
57. Haloras	gaceae R.Br. (1 genus and 3 spec	ies)
	byllum sibiricum Kom.	[5]
Myrioph	byllum spicatum L.	[1-11, 14]
Myriopk	byllum verticillatum L.	[1-10, 14]
58. Hydroc	charitaceae Juss. (2 genera and 5	species)
	ı verticillata (L.f.) Royle [≡ Serpic	
•	exilis (Willd.) Rostk. & W.L.E.Sch	
Najas m	aarina L.	[10, 11]
Najas m	ninor All.	[10]
Najas ter	nuissima (A.Braun) Magnus [≡ <i>Ca</i>	ulinia tenuissima (A.Braun) Tzvelev]
		[10]
59. Hyperio	caceae Juss. (1 genus and 4 taxa)	
	um ascyron L. subsp. ascyron	[2, 3, 4, 5]
	<i>um ascyron</i> subsp. <i>gebleri</i> (Ledeb.)	N.Robson
	Hypericum gebleri Ledeb.]	[2]
Hyperici	um attenuatum Choisy	[2, 3, 4, 5, 9]
Hyperici	um perforatum L.	[3, 6]

6	<b>0. Iridaceae</b> Juss. (1 genus and 21 taxa)
SE	Iris bungei Maxim. [≡ Cryptobasis bungei (Maxim.) M.B.Crespo]
	[3, 5, 8, 9, 11–13, 16]
	<i>Iris dichotoma</i> Pall. [2, 4, 5, 8, 9]
	Iris glaucescens Bunge [6]
	<i>Iris halophila</i> Pall. [≡ <i>Chamaeiris halophila</i> (Pall.) M.B.Crespo] [6, 14]
	Iris humilis Georgi [= Iris flavissima Pall.] [1–5, 8, 9, 12, 13]
SE	Iris ivanovae Doronkin [2, 3]
SE	Iris kamelinii Alexeeva [1, 7]
	Iris lactea Pall. [≡ Eremiris lactea (Pall.) Rodion.] [1–13, 15, 16]
	Iris loczyi Kanitz [7, 10]
	<i>Iris ludwigii</i> Maxim. [≡ <i>Xyridion ludwigii</i> (Maxim.) Rodion.] [7]
	Iris potaninii Maxim. [1–4, 6–13]
	Iris psammocola Y.T.Zhao [10]
SE	Iris pseudothoroldii Galanin [4]
	Iris ruthenica subsp. brevituba (Maxim.) Doronkin
	$[\equiv Iris \ ruthenica \ var. \ brevituba \ Maxim.] $ [1, 2]
	Iris ruthenica Ker Gawl. subsp. ruthenica [1, 2, 3, 4, 5]
E	Iris schmakovii Alexeeva [1]
	Iris sibirica L. [= Iris sanguinea Donn] [2, 4, 5, 9]
	Iris tenuifolia Pall. [7–15]
	Iris tigridia Bunge [1, 2, 3, 4, 8]
	Iris uniflora Pall. [ $\equiv$ Joniris uniflora (Pall.) M.B.Crespo] [4, 5]
	Iris ventricosa Pall. [≡ Cryptobasis ventricosa (Pall.) M.B.Crespo] [5, 9]
6	1. Juncaceae Juss. (2 genera and 32 taxa)
	Juncus alpinoarticulatus subsp. fischerianus (V.I.Krecz.) Hämet-Ahti [1–10, 14]
SE	<i>Juncus arcticus</i> subsp. <i>grubovii</i> (Novikov) Novikov [≡ <i>Juncus grubovii</i> Novikov]
	[1, 2, 3]
	Juncus articulatus L. subsp. articulatus [4, 9, 14]
	Juncus articulatus subsp. limosus (Vorosch.) Vorosch. [≡ Juncus limosus Vorosch.]
	[3, 4, 5, 9]
	Juncus biglumis L. [1, 6, 7]
	Juncus bufonius L. [1–16]
	Juncus castaneus subsp. leucochlamys (V.I.Krecz.) Hultén
	$[\equiv Juncus\ leucochlamys\ V.I.Krecz.]$ [1–4, 6, 7, 9]
	Juncus castaneus subsp. triceps (Rostk.) Novikov [1–3, 6, 7, 13]
	Juncus compressus Jacq. $[1, 3-5, 8-10, 13, 14]$
	Juncus filiformis L. [7]
	Juncus gerardi Loisel [2–4, 6–10, 13–15]
	Juncus gracillimus (Buchenau) V.I.Krecz. & Gontsch. [2, 3, 5, 9]
	Juncus hybridus Brot. [= Juncus bufonius subsp. ambiguus (Guss.)
	Schinz & Thell.] [3, 4, 6, 7, 9–11, 13–15]

Juncus orchonicus Novikov	[2–5, 8, 9, 10]
Juncus persicus subsp. libanoticus (J.Thiébaut) Novik	xov & Snogerup
[= Juncus libanoticus J.Thiébaut]	[3, 4, 6, 7]
Juncus ranarius Songeon & E.P.Perrier [= Juncus buj	fonius subsp.
nastanthus (V.I.Krecz. & Gontsch.) Soó]	[10, 14]
Juncus salsuginosus Turcz.	[1-4, 6-8, 10-13, 15]
Juncus soranthus Schrenk	[3, 7]
Juncus triglumis L.	[1–4, 6, 7, 10, 13, 14]
Juncus turkestanicus V.I.Krecz. & Gontsch. [≡ Juncu	us bufonius subsp.
turkestanicus (V.I.Krecz. & Gontsch.) Novikov]	[3–5, 7, 9, 10, 14]
Juncus virens Buchenau [≡ Juncus papillosus var. vire	ns
(Buchenau) Vorosch.]	[4]
Luzula confusa Lindeb.	[1, 2, 6, 7]
Luzula multiflora (Ehrh.) Lej.	[3]
Luzula multiflora subsp. frigida (Buchenau) V.I.Kre	cz. [7]
Luzula multiflora subsp. sibirica V.I.Krecz. $[\equiv Luzul$	la sibirica (V.I.Krecz.)
V.I.Krecz.]	[1-4, 6, 7]
Luzula nivalis (Laest.) Spreng. [≡ Luzula campestris	var. <i>nivalis</i> Laest.] [1]
Luzula pallescens Sw.	[1-5, 7, 9]
Luzula parviflora Desv.	[1, 2, 3, 6, 7]
Luzula pilosa (L.) Willd. [≡ Juncus pilosus L.]	[2]
Luzula rufescens var. macrocarpa Buchenau [= Luzul	la changaica Novikov] [3]
<i>Luzula spicata</i> subsp. <i>mongolica</i> Novikov	[1-3, 6, 7, 13]
Luzula rufescens Fisch. var. rufescens	[1, 2, 3, 4]
<b>62. Juncaginaceae</b> Juss. (1 genus and 2 species)	
Triglochin maritima L.	[1–16]
Triglochin palustris L.	[1–9, 11–16]
8 1	<b>L</b> , <b>J</b>
<b>63. Lamiaceae</b> Martinov (22 genera and 103 taxa)	
Note: The herbarium records of <i>Phlomis oreophila</i> in N	Mongolia was identified as
Phlmoides chinghoensis by Lazkov (2011).	
Amethystea caerulea L.	[2–11, 13]
Caryopteris mongholica Bunge	[2-4, 7-9, 11-13, 15, 16]
Dracocephalum argunense Fisch.	[5]
Dracocephalum discolor Bunge	[3, 7, 10]
Dracocephalum foetidum Bunge	[1-4, 6-13]
Dracocephalum fragile Turcz.	[1, 3, 6, 7]
Dracocephalum fruticulosum Stephan	[3, 4, 6–8, 10–13, 16]
Dracocephalum grandiflorum L.	[1-3, 6, 7, 13]
Dracocephalum heterophyllum subsp. heterophyllum	
Dracocephalum heterophyllum subsp. ovalifolium A.I	
$[\equiv Dracocephalum\ ovalifolium\ (A.L.Budantzev)$	Doronkin] [3]

	Dracocephalum imberbe Bunge	[1, 6, 7]
	Dracocephalum integrifolium Bunge [≡ Ruyschiana integ	
	(Bunge) House]	[6, 7]
	Dracocephalum junatovii A.L.Budantzev	[4, 9]
	Dracocephalum moldavicum C.Morren	[12, 13, 15]
	Dracocephalum nodulosum Rupr.	[14]
	Dracocephalum nutans L.	[1, 2, 3, 4, 7]
	Dracocephalum olchonense Peschkova	[4]
	Dracocephalum origanoides Steph. subsp. origanoides	[1, 3, 4, 6–9, 13, 14]
	Dracocephalum origanoides subsp. bungeanum	
	(Schischk. & Serg. A.L.Budantzev	
	[≡ <i>Dracocephalum bungeanum</i> Schischk. & Serg.]	[1, 6, 7, 13]
	Dracocephalum paulsenii Briq.	[14]
	Dracocephalum peregrinum L.	[6, 7]
	Dracocephalum pinnatum L.	[6]
	Dracocephalum ruyschiana L.	[2, 3, 4, 5, 6, 8]
	Elsholtzia ciliata (Thunb.) Hyl.	[2, 4]
	Elsholtzia densa Benth.	[4, 13]
	Galeopsis bifida Boenn. [≡ Galeopsis tetrahit var. bifida	(Boenn.)
	Lej. & Courtois]	[2, 3, 4, 9]
	Hyssopus ambiguus (Trautv.) Iljin	
	[= Hyssopus officinalis var. ambiguus Trautv.]	[7]
	Hyssopus cuspidatus Boriss.	[7, 14]
	Lagochilus bungei Benth.	[7, 14]
	Lagochilus diacanthophyllus Benth.	[6, 7, 14]
	Lagochilus ilicifolius Bunge	[3, 7, 8, 10–16]
E	Lagopsis darwiniana Pjak	[7]
	Lagopsis eriostachya (Benth.) IkonnGal.	[1, 7, 10, 14]
	Lagopsis flava Kar. & Kir.	[7]
	Lagopsis marrubiastrum (Steph.) IkonnGal.	[3, 6, 7, 13, 14]
	Lagopsis supina (Steph.) IkonnGal.	[2, 3, 4, 9]
	Lamium album L.	[1, 2, 4, 5, 7, 9]
	Leonurus deminutus V.I.Krecz. [≡ Leonurus glaucescens ·	var.
	deminutus (V.I.Krecz.) Karav. ]	[1-4, 7, 8, 9, 13]
	Leonurus glaucescens Bunge	[6, 7, 8, 9]
	Leonurus mongolicus V.I.Krecz. & Kuprian.	[2-4, 6-9]
	Leonurus pseudopanzerioides Krestovsk. [= Leonurus car	<i>diaca</i> subsp.
	turkestanicus (V.I.Krecz. & Kuprian.) Rech.f.]	[7, 14]
	Leonurus sibiricus L.	[1-5, 8, 9, 12]
	Leonurus turkestanicus V.I.Krecz. & Kuprian.	[7]
	Lophanthus chinensis Benth.	[1–4, 6–10, 12, 13]
	Lophanthus krylovii Lipsky	[7]
	Lycopus lucidus Turcz.	[9]

	Mentha aquatica L.	[4]
	Mentha arvensis L.	[2-10, 14]
	Mentha canadensis L.	[2]
	Nepeta annua Pall. [≡ Schizonepeta annua (Pall.) Schischk.]	[3, 6–16]
	Nepeta densiflora Kar. & Kir.	[7, 14]
	Nepeta micrantha Bunge	[7, 14]
	Nepeta multifida L.	[1-5, 7-9, 13]
	Nepeta nuda L.	[6]
	Nepeta pungens Benth.	[14]
	Nepeta sibirica L. [2, 3, 6,	7, 10, 13, 14]
	Origanum vulgare L.	[1, 6, 9]
	Panzerina canescens (Bunge) Soják	[6, 7, 10, 13]
	Panzerina lanata (L.) Soják [≡ Ballota lanata Willd.] [2, 3	, 4, 6–14, 16]
	Phlomoides agraria (Bunge) Adylov [≡ Phlomis agraria Bunge]	[6, 7]
	Phlomoides alpina (Pall.) Adylov $[\equiv Phlomis \ alpina \ Pall.]$	[7]
SE	Phlomoides chinghoensis (C.Y.Wu) Kamelin & Makhm. [≡ Phlom	is chinghoensis
	C.Y.Wu]	[7, 10, 14]
	Phlomoides molucelloides (Bunge) Salmaki	
	[≡ Eremostachys molucelloides Bunge]	[6, 14]
	Phlomoides mongolica (Turcz.) Kamelin & A.L.Budantzev	
	[≡ <i>Phlomis mongolica</i> Turcz.]	[5, 9]
	Phlomoides pratensis (Kar. & Kir.) Adylov	
	[≡ Phlomis pratensis Kar. & Kir.]	[6]
	Phlomoides tuberosa Moench [ $\equiv Phlomis tuberosa L.$ ]	[2–9]
	Phlomoides tuvinica (A.Schroet.) Kamelin [≡ Phlomis tuvinica A.	.Schroet.]
		[6, 7, 8]
	Salvia abrotanoides (Kar.) Sytsma [≡ Perovskia abrotanoides Kar.]	[6]
	Salvia deserta Schangin	[6]
	Scutellaria altaica Ledeb.	[7]
	Scutellaria baicalensis Georgi	[1-5, 8, 9]
	Scutellaria dependens Maxim.	[2, 4]
	Scutellaria galericulata L. [1	-6, 9, 10, 14]
	Scutellaria grandiflora Sims subsp. grandiflora [2–4, 6,	7, 10, 13, 14]
E	Scutellaria grandiflora subsp. gymnosperma Kamelin & Gubanov	[7, 13]
	Scutellaria krasevii Kom. & I.Schischk.	[3]
	Scutellaria paulsenii Briq.	[7]
	Scutellaria regeliana var. ikonnikovii (Juz.) C.Y.Wu & H.W.Li	[2, 4]
	Scutellaria scordiifolia Fisch.	[1–9]
	Scutellaria sieversii Bunge	[6, 7]
	Scutellaria supina L. [= Scutellaria alpina subsp. supina (L.) I.Richa:	rdson] [7, 14]
	Scutellaria tuvensis Juz. [≡ Scutellaria grandiflora subsp. tuvensis	
	(Juz.) Kamelin & Gubanov]	[10]
	Scutellaria viscidula Bunge	[9]

	Stachys aspera subsp. baicalensis (Fisch.) Krestovsk.	
	[≡ Stachys baicalensis Fisch.]	[2, 3, 4, 5]
	Stachys palustris L.	[2-6, 9, 10]
	Thymus altaicus Klokov & DesShost.	[3, 6, 7, 10]
	Thymus baicalensis Serg.	[1, 2, 3, 4, 10]
	Thymus bituminosus Klokov	[1]
	Thymus dahuricus Serg.	[2, 4, 5, 8, 9]
E	Thymus gobi-altaicus (N.Ulziykh.) Kamelin & A.L.Budantzev	[13]
	Thymus gobicus Tscherneva	[2, 3, 4, 7-13]
	Thymus komarovii Serg.	[9]
	Thymus michaelis Kamelin & A.L.Budantzev	[2, 4, 8, 9]
	Thymus minussinensis Serg.	[10]
	Thymus mongolicus (Ronniger) Ronniger	[3, 7, 9, 13]
	Thymus narymensis Serg.	[7]
	Thymus pavlovii Serg.	[1, 3]
	Thymus roseus Schipcz.	[7]
	Thymus sibiricus Klokov & DesShost.	[4]
	Thymus turczaninovii Serg.	[9]
	Ziziphora clinopodioides Lam. subsp. clinopodioides	[7, 14]
	Ziziphora clinopodioides subsp. bungeana (Juz.) Rech.f.	
	[≡ Ziziphora bungeana Juz.]	[6, 7, 13]
	Ziziphora pamiroalaica Juz.	[7, 14]
	<b>64. Lentibulariaceae</b> Rich. (2 genera and 7 species)	
	Pinguicula alpina L.	[1]
	Pinguicula vulgaris L.	[1]
	Utricularia australis R.Br.	[10, 14]
	Utricularia intermedia Hayne [≡ Lentibularia intermedia	
	(Hayne) Nieuwl. & Lunell]	[1, 2, 3, 6]
	<i>Utricularia</i> × <i>japonica</i> Makino	[10]
	Utricularia minor L.	[3, 9, 10, 14]
	Utricularia vulgaris L. [≡ Lentibularia vulgaris (L.) Moench]	[1-11, 14, 15]
	<b>65. Liliaceae</b> Juss. (5 genera and 15 taxa)	[-]
CE	Erythronium sibiricum (Fisch. & C.A.Mey.) Krylov	[7]
SE	8	[1, 2, 3]
	Gagea brevistolonifera Levichev	[7]
	Gagea filiformis Merckl.	[7]
	Gagea granulosa Turcz.	[7]
0.	Gagea hiensis Pasch. [= Gagea terraccianoana Pasch.]	[1,2]
SE		171
	8	[7]
	Gagea kuraiensis Levichev Gagea fragifera (Vill.) Ehr.Bayer & G.López [= Gagea liotardii (Sternb.) Schult. & Schult. f.]	[7]

Gagea pauciflora Turcz. [1–5, 7, 9, 14] Gagea serotina (L.) Ker Gawl. [≡ Lloydia serotina (L.) Salisb.] [1–3, 6, 7, 13] Lilium concolor var. partheneion (Siebold & de Vriese) Baker [≡ Lilium buschianum G.Lodd.] [5] Lilium martagon L. [1–7]
Lilium pensylvanicum Ker Gawl. [= Lilium dauricum Ker Gawl.] [2, 4, 5]  Lilium pumilum Redouté [= Lilium potaninii Vrishcz] [1–5, 8, 9, 12]  Tulipa uniflora (L.) Besser [3, 5, 7–10, 14]
66. Linaceae DC. (1 genus and 5 species)       [1, 6, 7, 8, 9]         Linum altaicum Ledeb.       [1-5, 7-9, 13]         Linum baicalense Juz.       [1-5, 7-9, 13]         Linum pallescens Bunge       [2-5, 7-10, 13, 14]         Linum perenne L.       [7, 14]         Linum violascens Bunge       [7]
67. Lythraceae J.StHil. (1 genus and 3 species)  Lythrum salicaria L. [4]  Lythrum virgatum L. [6, 14]  Lythrum borysthenicum (Schrank) Litv. [≡ Peplis borysthenica Schrank]  [10]
68. Malvaceae       Juss. (2 genera and 5 species)         Abutilon theophrasti Medik.       [15]         Malva neglecta Wallr       [4, 7, 10, 11, 14]         Malva pusilla Sm.       [13, 14, 15]         Malva sylvestris L.       [13, 15]         Malva verticillata L.       [1-4, 7, 8, 10, 16]
69. Mazaceae Reveal (3 genera and 3 species)  Note: Mazaceae was separated from Phrymaceae according to APG IV (2016).  Dodartia orientalis L. [6, 7, 14]  Lancea tibetica Hook.f. & Thomson [1, 3]  Mazus stachydifolius Maxim. [5]
70. Melanthiaceae Batsch (3 genera and 5 species)  Anticlea sibirica (L.) Kunth [ $\equiv$ Zigadenus sibiricus (L.) A.Gray] [1, 3]  Paris quadrifolia L. [2, 3, 4, 5]  Paris verticillata M.Bieb. [2, 4, 5]  Veratrum lobelianum Bernh. [1, 3, 4, 5, 7, 9]  Veratrum nigrum L. [3, 4, 5, 9]

71. Menispermaceae Juss. (1 genus and 1 species)  Menispermum dauricum DC.	[2, 3, 4, 5]
72. Menyanthaceae Dumort. (2 genera and 2 species)  Nymphoides peltata (S.G.Gmel.) Kuntze  Menyanthes trifoliata L.	[1, 3, 8–10, 14] [1, 2, 3, 4]
73. Molluginaceae Bartl. (1 genus and 1 species)  Hypertelis cerviana (L.) Thulin [≡ Mollugo cerviana (L.) Ser.]	[12, 14, 15]
74. Montiaceae Raf. (1 genus and 1 species)  Claytonia joanneana Roem. & Schult.	[1, 2, 3, 4, 6, 7]
<b>75. Nitrariaceae</b> Lindl. (2 genera and 5 species)  Nitraria roborowskii Kom. [≡ Nitraria schoberi var. roborowskii	
	[7, 10, 13, 14, 15]
Nitraria sibirica Poir.	[4, 6-16]
Nitraria sphaerocarpa Maxim.	[13, 15, 16]
Peganum harmala L. [= Peganum multisectum (Maxim.) Bob	
	[7, 10, 13, 14, 15]
Peganum nigellastrum Bunge	[3, 4, 8-13, 16]
7( N 1 C ! 1 (2 1 2 1 2 )	
76. Nymphaeaceae Salisb. (2 genera and 2 species) Note: Recently, this family was revised based on field observation herbarium specimens in Mongolia (Baasanmunkh et al. 2022b). In a Georgi is not recorded in Mongolia, according to Baasanmun Nuphar pumila (Timm) DC.  Nymphaea candida J.Presl.	Nymphaea tetrago-
Note: Recently, this family was revised based on field observation herbarium specimens in Mongolia (Baasanmunkh et al. 2022b).   na Georgi is not recorded in Mongolia, according to Baasanmunkh et al. 2022b).   Nuphar pumila (Timm) DC.   Nymphaea candida J.Presl.	Nymphaea tetrago- nkh et al (2022b). [1, 3, 10, 11]
Note: Recently, this family was revised based on field observation herbarium specimens in Mongolia (Baasanmunkh et al. 2022b).   na Georgi is not recorded in Mongolia, according to Baasanmunkh et al. 2022b).   Nuphar pumila (Timm) DC.  Nymphaea candida J.Presl.  77. Onagraceae Juss. (2 genera and 12 taxa)  Circaea alpina L. subsp. alpina  Circaea alpina subsp. caulescens (Kom.) Tatew.  Epilobium anagallidifolium Lam. [= Epilobium alpinum L.]	Nymphaea tetrago- nkh et al (2022b). [1, 3, 10, 11] [1, 3, 7, 10, 11] [2, 3, 4, 5] [3] [7]
Note: Recently, this family was revised based on field observation herbarium specimens in Mongolia (Baasanmunkh et al. 2022b).   na Georgi is not recorded in Mongolia, according to Baasanmun Nuphar pumila (Timm) DC.  Nymphaea candida J.Presl.  77. Onagraceae Juss. (2 genera and 12 taxa)  Circaea alpina L. subsp. alpina  Circaea alpina subsp. caulescens (Kom.) Tatew.	Nymphaea tetrago- nkh et al (2022b). [1, 3, 10, 11] [1, 3, 7, 10, 11] [2, 3, 4, 5] [3] [7]
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<ul> <li>Note: Recently, this family was revised based on field observation herbarium specimens in Mongolia (Baasanmunkh et al. 2022b).</li> <li>na Georgi is not recorded in Mongolia, according to Baasanmun Nuphar pumila (Timm) DC.</li> <li>Nymphaea candida J.Presl.</li> <li>77. Onagraceae Juss. (2 genera and 12 taxa)</li> <li>Circaea alpina L. subsp. alpina</li> <li>Circaea alpina subsp. caulescens (Kom.) Tatew.</li> <li>Epilobium anagallidifolium Lam. [= Epilobium alpinum L.]</li> <li>Epilobium angustifolium L. [≡ Chamaenerion angustifolium (</li> </ul>	Nymphaea tetrago- nkh et al (2022b). [1, 3, 10, 11] [1, 3, 7, 10, 11]  [2, 3, 4, 5] [3] [7] L.) Schur] [1–9, 14]
<ul> <li>Note: Recently, this family was revised based on field observation herbarium specimens in Mongolia (Baasanmunkh et al. 2022b). In a Georgi is not recorded in Mongolia, according to Baasanmun Nuphar pumila (Timm) DC.  Nymphaea candida J.Presl.</li> <li>77. Onagraceae Juss. (2 genera and 12 taxa)  Circaea alpina L. subsp. alpina  Circaea alpina subsp. caulescens (Kom.) Tatew.  Epilobium anagallidifolium Lam. [= Epilobium alpinum L.]  Epilobium angustifolium L. [≡ Chamaenerion angustifolium (Epilobium ciliatum Raf.</li> </ul>	Nymphaea tetrago- nkh et al (2022b). [1, 3, 10, 11] [1, 3, 7, 10, 11]  [2, 3, 4, 5] [3] [7] L.) Schur] [1–9, 14] [2] [2, 3, 4, 11]
<ul> <li>Note: Recently, this family was revised based on field observation herbarium specimens in Mongolia (Baasanmunkh et al. 2022b). In a Georgi is not recorded in Mongolia, according to Baasanmun Nuphar pumila (Timm) DC.  Nymphaea candida J.Presl.</li> <li>77. Onagraceae Juss. (2 genera and 12 taxa)  Circaea alpina L. subsp. alpina  Circaea alpina subsp. caulescens (Kom.) Tatew.  Epilobium anagallidifolium Lam. [= Epilobium alpinum L.]  Epilobium angustifolium L. [≡ Chamaenerion angustifolium (Epilobium ciliatum Raf.  Epilobium davuricum Fisch.</li> </ul>	Nymphaea tetrago- nkh et al (2022b). [1, 3, 10, 11] [1, 3, 7, 10, 11]  [2, 3, 4, 5] [3] [7] L.) Schur] [1–9, 14] [2] [2, 3, 4, 11]
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Note: Recently, this family was revised based on field observation herbarium specimens in Mongolia (Baasanmunkh et al. 2022b).  na Georgi is not recorded in Mongolia, according to Baasanmunkh et al. 2022b).  na Georgi is not recorded in Mongolia, according to Baasanmunkh et al. 2022b).  Nuphar pumila (Timm) DC.  Nymphaea candida J.Presl.  77. Onagraceae Juss. (2 genera and 12 taxa)  Circaea alpina L. subsp. alpina  Circaea alpina subsp. caulescens (Kom.) Tatew.  Epilobium anagallidifolium Lam. [= Epilobium alpinum L.]  Epilobium angustifolium L. [≡ Chamaenerion angustifolium (  Epilobium davuricum Fisch.  Epilobium fastigiato-ramosum Nakai [= Epilobium baicalense Epilobium hirsutum L.  Epilobium latifolium L. [= Chamaenerion latifolium (L.) Swe	Nymphaea tetrago- nkh et al (2022b). [1, 3, 10, 11] [1, 3, 7, 10, 11]  [2, 3, 4, 5] [3] [7] L.) Schur] [1–9, 14] [2] [2, 3, 4, 11] Popov] [3, 4, 9] [3, 6] set]
Note: Recently, this family was revised based on field observation herbarium specimens in Mongolia (Baasanmunkh et al. 2022b).  **na** Georgi is not recorded in Mongolia, according to Baasanmun Nuphar pumila* (Timm) DC.  **Nymphaea candida** J.Presl.*  77. **Onagraceae** Juss.* (2 genera and 12 taxa)  **Circaea alpina** L. subsp. alpina  **Circaea alpina subsp. caulescens* (Kom.) Tatew.  **Epilobium anagallidifolium** Lam.* [= Epilobium alpinum** L.]  **Epilobium angustifolium** L. [\equiv Chamaenerion angustifolium** (  **Epilobium ciliatum** Raf.  **Epilobium davuricum** Fisch.  **Epilobium fastigiato-ramosum** Nakai** [= Epilobium baicalense Epilobium hirsutum** L.  **Epilobium latifolium** L. [= Chamaenerion latifolium** (L.) Swe	Nymphaea tetrago- nkh et al (2022b). [1, 3, 10, 11] [1, 3, 7, 10, 11]  [2, 3, 4, 5] [3] [7] L.) Schur] [1–9, 14] [2] [2, 3, 4, 11] Popov] [3, 4, 9] [3, 6] [5] [6] [6]

79 Ouglidages lives (1/1 conous and 2/2 torre)	
78. Orchidaceae Juss. (14 genera and 26 taxa)	.11 . 1 (20211)
Note: Orchids of Mongolia were recently revised by Baasanmu	
Calypso bulbosa (L.) Oakes [= Cypripedium bulbosum L.]	[2,4]
Corallorhiza trifida Châtel.	[1, 2, 4]
Cypripedium calceolus L	[1, 2, 4]
Cypripedium guttatum Sw.	[1, 2, 3, 4, 5]
Cypripedium macranthos Sw.	[1, 2, 4, 5]
Cypripedium <b>x</b> ventricosum Sw.	[2]
Dactylorhiza fuchsii (Druce) Soó	[2, 4]
Dactylorhiza incarnata (L.) Soó	[3,5]
Dactylorhiza incarnata subsp. cruenta (O.F.Müll.) P.D.Sell	[3]
Dactylorhiza salina (Turcz.) Soó	[1-11, 14]
Dactylorhiza umbrosa (Kar. & Kir.) Nevski	[1, 3, 4, 7, 10, 14]
Dactylorhiza viridis (L.) R.M.Bateman [= Coeloglossum viride (	(L.) Hartm.] [1–7]
Epipogium aphyllum Sw.	[1, 2, 3, 4]
Goodyera repens (L.) R.Br.	[1, 2, 3, 4, 6]
Gymnadenia conopsea (L.) R.Br. [≡ Orchis conopsea L.]	[1–5]
Herminium alaschanicum Maxim. [ $\equiv$ Peristylus alaschanicus	
(Maxim.) N.Pearce & P.J.Cribb]	[16]
Herminium monorchis R.Br.	[1-5, 8, 9, 10]
Malaxis monophyllos (L.) Sw. $[\equiv Ophrys monophyllos L.]$	[1, 2, 3, 4, 5]
Neottia camtschatea Sprengel	[1, 2, 3, 7]
Neottia puberula (Maxim.) Szlach. [≡ Listera puberula Maxi	im.] [5]
	[2]
Orchis militaris L.	[3,4]
Orchis militaris L. Platanthera bifolia (L.) Rich.	
	[3, 4]
Platanthera bifolia (L.) Rich.	[3, 4] [1, 2, 3, 4]
Platanthera bifolia (L.) Rich. Platanthera fuscescens Kraenzl.	[3, 4] [1, 2, 3, 4] [2, 3, 4, 5] [1, 3]
Platanthera bifolia (L.) Rich. Platanthera fuscescens Kraenzl. Platanthera oligantha Turcz.	[3, 4] [1, 2, 3, 4] [2, 3, 4, 5] [1, 3]
Platanthera bifolia (L.) Rich. Platanthera fuscescens Kraenzl. Platanthera oligantha Turcz. Ponerorchis cucullata (L.) X.H.Jin [≡ Neottianthe cucullata (	[3, 4] [1, 2, 3, 4] [2, 3, 4, 5] [1, 3] L.) Schltr.]
Platanthera bifolia (L.) Rich. Platanthera fuscescens Kraenzl. Platanthera oligantha Turcz.	[3, 4] [1, 2, 3, 4] [2, 3, 4, 5] [1, 3] L.) Schltr.] [1, 2, 3, 4]
Platanthera bifolia (L.) Rich. Platanthera fuscescens Kraenzl. Platanthera oligantha Turcz. Ponerorchis cucullata (L.) X.H.Jin [≡ Neottianthe cucullata (Spiranthes australis Lindl.	[3, 4] [1, 2, 3, 4] [2, 3, 4, 5] [1, 3] L.) Schltr.] [1, 2, 3, 4]
<ul> <li>Platanthera bifolia (L.) Rich.</li> <li>Platanthera fuscescens Kraenzl.</li> <li>Platanthera oligantha Turcz.</li> <li>Ponerorchis cucullata (L.) X.H.Jin [≡ Neottianthe cucullata (</li> <li>Spiranthes australis Lindl.</li> <li>79. Orobanchaceae Vent. (9 genera and 57 taxa)</li> </ul>	[3, 4] [1, 2, 3, 4] [2, 3, 4, 5] [1, 3] L.) Schltr.] [1, 2, 3, 4] [2–5, 8, 9, 10]
<ul> <li>Platanthera bifolia (L.) Rich.</li> <li>Platanthera fuscescens Kraenzl.</li> <li>Platanthera oligantha Turcz.</li> <li>Ponerorchis cucullata (L.) X.H.Jin [≡ Neottianthe cucullata (</li> <li>Spiranthes australis Lindl.</li> <li>79. Orobanchaceae Vent. (9 genera and 57 taxa)</li> <li>Boschniakia rossica (Cham. &amp; Schltdl.) B.Fedtsch.</li> </ul>	[3, 4] [1, 2, 3, 4] [2, 3, 4, 5] [1, 3] L.) Schltr.] [1, 2, 3, 4] [2–5, 8, 9, 10]
<ul> <li>Platanthera bifolia (L.) Rich.</li> <li>Platanthera fuscescens Kraenzl.</li> <li>Platanthera oligantha Turcz.</li> <li>Ponerorchis cucullata (L.) X.H.Jin [≡ Neottianthe cucullata (</li> <li>Spiranthes australis Lindl.</li> <li>79. Orobanchaceae Vent. (9 genera and 57 taxa)</li> <li>Boschniakia rossica (Cham. &amp; Schltdl.) B.Fedtsch.</li> <li>Castilleja pallida (L.) Spreng.</li> </ul>	[3, 4] [1, 2, 3, 4] [2, 3, 4, 5] [1, 3] L.) Schltr.] [1, 2, 3, 4] [2–5, 8, 9, 10]  [2] [1–9, 13]
<ul> <li>Platanthera bifolia (L.) Rich.</li> <li>Platanthera fuscescens Kraenzl.</li> <li>Platanthera oligantha Turcz.</li> <li>Ponerorchis cucullata (L.) X.H.Jin [≡ Neottianthe cucullata (</li> <li>Spiranthes australis Lindl.</li> <li>79. Orobanchaceae Vent. (9 genera and 57 taxa)</li> <li>Boschniakia rossica (Cham. &amp; Schltdl.) B.Fedtsch.</li> <li>Castilleja pallida (L.) Spreng.</li> <li>Cistanche deserticola Ma</li> </ul>	[3, 4] [1, 2, 3, 4] [2, 3, 4, 5] [1, 3] L.) Schltr.] [1, 2, 3, 4] [2–5, 8, 9, 10]  [2] [1–9, 13] [7, 10–16]
<ul> <li>Platanthera bifolia (L.) Rich.</li> <li>Platanthera fuscescens Kraenzl.</li> <li>Platanthera oligantha Turcz.</li> <li>Ponerorchis cucullata (L.) X.H.Jin [≡ Neottianthe cucullata (</li> <li>Spiranthes australis Lindl.</li> <li>79. Orobanchaceae Vent. (9 genera and 57 taxa)</li> <li>Boschniakia rossica (Cham. &amp; Schltdl.) B.Fedtsch.</li> <li>Castilleja pallida (L.) Spreng.</li> <li>Cistanche deserticola Ma</li> <li>Cistanche feddeana K.S.Hao</li> </ul>	[3, 4] [1, 2, 3, 4] [2, 3, 4, 5] [1, 3]  L.) Schltr.] [1, 2, 3, 4] [2–5, 8, 9, 10]  [2] [1–9, 13] [7, 10–16] [9, 12, 13, 16]
<ul> <li>Platanthera bifolia (L.) Rich.</li> <li>Platanthera fuscescens Kraenzl.</li> <li>Platanthera oligantha Turcz.</li> <li>Ponerorchis cucullata (L.) X.H.Jin [≡ Neottianthe cucullata (</li> <li>Spiranthes australis Lindl.</li> <li>79. Orobanchaceae Vent. (9 genera and 57 taxa)</li> <li>Boschniakia rossica (Cham. &amp; Schltdl.) B.Fedtsch.</li> <li>Castilleja pallida (L.) Spreng.</li> <li>Cistanche deserticola Ma</li> <li>Cistanche feddeana K.S.Hao</li> <li>Cistanche lanzhouensis Zhi Y.Zhang</li> </ul>	[3, 4] [1, 2, 3, 4] [2, 3, 4, 5] [1, 3]  L.) Schltr.] [1, 2, 3, 4] [2–5, 8, 9, 10]  [2] [1–9, 13] [7, 10–16] [9, 12, 13, 16] [12]
Platanthera bifolia (L.) Rich. Platanthera fuscescens Kraenzl. Platanthera oligantha Turcz. Ponerorchis cucullata (L.) X.H.Jin [≡ Neottianthe cucullata ( Spiranthes australis Lindl.  79. Orobanchaceae Vent. (9 genera and 57 taxa) Boschniakia rossica (Cham. & Schltdl.) B.Fedtsch. Castilleja pallida (L.) Spreng. Cistanche deserticola Ma Cistanche feddeana K.S.Hao Cistanche lanzhouensis Zhi Y.Zhang Cistanche salsa (C.A.Mey.) Beck	[3, 4] [1, 2, 3, 4] [2, 3, 4, 5] [1, 3]  L.) Schltr.] [1, 2, 3, 4] [2–5, 8, 9, 10]  [2] [1–9, 13] [7, 10–16] [9, 12, 13, 16] [12] [12–16]
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Platanthera bifolia (L.) Rich. Platanthera fuscescens Kraenzl. Platanthera oligantha Turcz. Ponerorchis cucullata (L.) X.H.Jin [≡ Neottianthe cucullata ( Spiranthes australis Lindl.  79. Orobanchaceae Vent. (9 genera and 57 taxa) Boschniakia rossica (Cham. & Schltdl.) B.Fedtsch. Castilleja pallida (L.) Spreng. Cistanche deserticola Ma Cistanche feddeana K.S.Hao Cistanche lanzhouensis Zhi Y.Zhang Cistanche salsa (C.A.Mey.) Beck Cymbaria daurica L. Euphrasia altaica Serg.	[3, 4] [1, 2, 3, 4] [2, 3, 4, 5] [1, 3]  L.) Schltr.] [1, 2, 3, 4] [2–5, 8, 9, 10]  [2] [1–9, 13] [7, 10–16] [9, 12, 13, 16] [12] [12–16] [2–5, 7–13] [7]
Platanthera bifolia (L.) Rich. Platanthera fuscescens Kraenzl. Platanthera oligantha Turcz. Ponerorchis cucullata (L.) X.H.Jin [≡ Neottianthe cucullata ( Spiranthes australis Lindl.  79. Orobanchaceae Vent. (9 genera and 57 taxa) Boschniakia rossica (Cham. & Schltdl.) B.Fedtsch. Castilleja pallida (L.) Spreng. Cistanche deserticola Ma Cistanche feddeana K.S.Hao Cistanche lanzhouensis Zhi Y.Zhang Cistanche salsa (C.A.Mey.) Beck Cymbaria daurica L. Euphrasia altaica Serg. Euphrasia hirtella Jord.	[3, 4] [1, 2, 3, 4] [2, 3, 4, 5] [1, 3]  L.) Schltr.] [1, 2, 3, 4] [2–5, 8, 9, 10]  [2] [1–9, 13] [7, 10–16] [9, 12, 13, 16] [12] [12–16] [2–5, 7–13] [7] [2, 3, 4, 5]
Platanthera bifolia (L.) Rich. Platanthera fuscescens Kraenzl. Platanthera oligantha Turcz. Ponerorchis cucullata (L.) X.H.Jin [≡ Neottianthe cucullata ( Spiranthes australis Lindl.  79. Orobanchaceae Vent. (9 genera and 57 taxa) Boschniakia rossica (Cham. & Schltdl.) B.Fedtsch. Castilleja pallida (L.) Spreng. Cistanche deserticola Ma Cistanche feddeana K.S.Hao Cistanche feddeana K.S.Hao Cistanche salsa (C.A.Mey.) Beck Cymbaria daurica L. Euphrasia altaica Serg. Euphrasia hirtella Jord. Euphrasia maximowiczii Wettst.	[3, 4] [1, 2, 3, 4] [2, 3, 4, 5] [1, 3]  L.) Schltr.] [1, 2, 3, 4] [2–5, 8, 9, 10]  [2] [1–9, 13] [7, 10–16] [9, 12, 13, 16] [12] [12–16] [2–5, 7–13] [7] [2, 3, 4, 5] [2, 4, 5, 9]
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	Euphrasia syreitschikovii Govor.	[1, 2, 3, 5–8]
	Odontites vulgaris Moench	[2-4, 7-11, 14]
	Orobanche amoena C.A.Mey.	[7, 14]
	Orobanche caesia Rchb. [= Phelypaea lanuginosa C.A.Mey.	
	$\equiv Orobanche lanuginosa (C.A.Mey.) Beck]$	[1, 2, 3, 4]
	Orobanche cernua Loefl.	[7, 10, 13, 14]
	Orobanche coerulescens Steph. [≡ Orobanchella coerulescens	
	(Steph.) Piwow.]	[5, 7–15]
	Orobanche coerulescens var. albiflora Kuntze [= Orobanche	korshinskyi [1–15]
	Novopokr.]	
	Orobanche pycnostachya Hance	[5]
	Pedicularis abrotanifolia M.Bieb.	[1, 3, 6, 7, 13, 14]
	Pedicularis achilleifolia Steph.	[1, 3, 6–8, 10, 14]
	Pedicularis altaica Steph.	[6, 7, 10, 14]
	Pedicularis amoena Adams	[1–3, 6, 7, 13, 14]
	Pedicularis anthemifolia Fisch.	[1, 3, 6, 7, 13]
	Pedicularis compacta Steph.	[1, 2, 3, 6, 7]
	Pedicularis dolichorrhiza Schrenk	[7, 14]
O.F.	Pedicularis elata Willd.	[3, 6, 7]
SE	Pedicularis fetisowii Regel	[14]
	Pedicularis fissa Turcz.	[2,7]
0.5	Pedicularis flava Pall.	[2–4, 6–11, 13–15]
SE	Pedicularis incarnata L.	[1]
	Pedicularis labradorica Wirsing	[1, 2, 3, 4]
	Pedicularis lapponica L.	[1]
	Pedicularis lasiostachys Bunge	[3, 6, 7]
	Pedicularis longiflora Rudolph	[1, 2, 3, 7, 11]
	Pedicularis moschata Maxim.	[6, 7, 10]
	Pedicularis myriophylla Pall.	[1–4, 6–8, 13]
	Pedicularis oederi Vahl	[1, 2, 3, 6, 7]
	Pedicularis palustris L. subsp. karoi (Freyn) P.C.Tsoong	
	[≡ <i>Pedicularis karoi</i> Freyn]	[1–6, 8, 9, 10, 14]
	Pedicularis physocalyx Bunge	[7]
	Pedicularis proboscidea Steven	[7]
	Pedicularis resupinata L.	[1–6, 8–10, 13]
	Pedicularis rhinanthoides Schrenk	[7]
	Pedicularis rubens Steph.	[1, 2, 3, 4, 5]
	Pedicularis sceptrum-carolinum L.	[2, 3, 4, 5, 7]
	Pedicularis sibirica Vved.	[1, 3, 7]
	Pedicularis spicata Pall.	[3, 4, 5]
	Pedicularis striata Pall.	[1-5, 8, 9]
	Pedicularis sudetica Willd.	[1, 2]
	Pedicularis tristis L	[1, 2, 3, 6, 7, 8]

Pedicularis uliginosa Bunge Pedicularis venusta Schangin Pedicularis verticillata L. Pedicularis wlassoviana Steven	[1-4, 6, 7, 10, 13] [1-4, 6-11] [1, 2, 3, 4, 5, 9] [2]
Rhinanthus serotinus Oborny Rhinanthus songaricus (Sterneck) B.Fedtsch. [≡ Rhinanthi	[2]
(Dörf.) Soó subsp. songaricus (Sterneck) Soó]	[2, 3, 4]
<b>80. Oxalidaceae</b> R.Br. (1 genus and 1 species)	
Oxalis acetosella L.	[1, 2]
<b>81. Paeoniaceae</b> Raf. (1 genus and 3 species)	
Paeonia anomala L.	[1, 2, 3, 4, 6, 7]
Paeonia intermedia C.A.Mey.	[6, 7]
Paeonia lactiflora Pall.	[2, 4, 5, 9]
	[2, 1, 5, 7]
82. Papaveraceae Juss. (6 genera and 30 species)	
Chelidonium majus L.	[1-5, 7, 9]
Corydalis adunca Maxim.	[6, 7, 13, 14, 15]
Corydalis capnoides Pers.	[2, 6, 7, 9, 14]
Corydalis grubovii Mikhailova	[6, 7]
Corydalis impatiens Fisch.	[1, 2, 3, 7]
Corydalis inconspicua Bunge	[1, 2, 6, 7]
Corydalis pauciflora Pers.	[1, 2, 6, 13]
Corydalis sajanensis Peschkova [≡ Corydalis pauciflora subs sajanensis (Peschkova) Mikhailova]	p. [1]
Corydalis schanginii (Pall.) B.Fedtsch.	[7, 14]
Corydalis sibirica Pers.	[1–4, 6–8, 10, 13]
Corydalis stricta Steph. [= Corydalis grubovii Mikhailova] Fumaria officinalis L.	[6, 7, 13] [7]
Fumaria schleicheri SoyWill.	[7, 14]
Glaucium elegans Fisch. & C.A.Mey.	[14]
Glaucium squamigerum Kar. & Kir.	[7, 14]
Hypecoum erectum L.	[2–5, 8, 9, 11, 12]
Hypecoum lactiflorum (Kar. & Kir.) Pazii	[3, 4, 6–16]
Hypecoum leptocarpum Hook.f. & Thomson	[3]
Papaver baitagense Kamelin & Gubanov	[6, 7, 14]
Papaver canescens Tolm.	[1-7, 13]
Papaver chakassicum Peschkova	[6, 7]
Papaver lapponicum (Tolm.) Nordh.	[7]
Papaver nudicaule L.	[1–7, 9, 13]
Papaver pseudocanescens Popov	[1, 3, 6, 7, 13]
Papaver pseudotenellum Grubov	[7, 10, 13, 14]

E

Papaver rubroaurantiacum (Fisch.) C.E.Lundstr.       [1-10, 13]         Papaver saichanense Grubov [≡ Papaver rubroaurantiacum subsp. saichanense         (Grubov) Kamelin & Gubanov]       [7, 13]         Papaver smirnovii (Peschkova) Kamelin & Gubanov]       [4, 9]         Papaver setosum (Tolm.) Peschkova [≡ Papaver rubroaurantiacum subsp. setosum Tolm.]       [4]         83. Phyllanthaceae Martinov (1 genus and 1 species)       [5, 9]         84. Plantaginaceae Juss. (7 genera and 47 species)       [5, 9]         Callitriche hermaphroditica L.       [1, 3, 4, 5]         Callitriche palustris L       [1-5, 7, 9-11, 14]         Hippuris vulgaris L.       [1-11, 13, 14]         Lagotis integrifolia (Willd.) Schischk.       [1, 2, 3, 7, 13]         Linaria acutiloba Fisch. [≡ Linaria vulgaris Mill. subsp. acutilaba       [Fisch.) D.Y.Hong]       [1-4, 6-8, 13, 14]         Linaria altaica Fisch.       [3, 6, 7, 10, 14]       [1-6, 8, 9]         Linaria beviatica Turcz.       [1-6, 8, 9]       [1-6, 8, 9]         Linaria hepatica Bunge       [6, 7, 11, 13, 14]         Linaria melampyroides Kuprian.       [7, 14]         Linaria pedicellata Kuprian.       [6, 7, 10, 13, 14]         Plantago arachnoidea Var. lorata J.Z.Liu       [14]         Plantago depressa Willd.       [1-10, 12, 13]         <
(Grubov) Kamelin & Gubanov] [7, 13]  Papaver smirnovii Peschkova [≡ Papaver rubroaurantiacum subsp.  smirnovii (Peschkova) Kamelin & Gubanov] [4, 9]  Papaver setosum (Tolm.) Peschkova [≡ Papaver rubroaurantiacum subsp.  setosum Tolm.] [4]  83. Phyllanthaceae Martinov (1 genus and 1 species)  Flueggea suffruticosa Baill. [5, 9]  84. Plantaginaceae Juss. (7 genera and 47 species)  Callitriche hermaphroditica L. [1, 3, 4, 5]  Callitriche palustris L [1−5, 7, 9−11, 14]  Hippuris vulgaris L. [1−11, 13, 14]  Lagotis integrifolia (Willd.) Schischk. [1, 2, 3, 7, 13]  Linaria acutiloba Fisch. [≡ Linaria vulgaris Mill. subsp. acutiloba  (Fisch.) D.Y.Hong] [1−4, 6−8, 13, 14]  Linaria altaica Fisch. [≡ Linaria vulgaris Mill. subsp. acutiloba  (Fisch.) D.Y.Hong] [1−4, 6−8, 13, 14]  Linaria buriatica Turcz. [1−6, 8, 9]  Linaria debilis Kuprian. [7, 14]  Linaria hepatica Bunge [6, 7, 11, 13, 14]  Linaria melampyroides Kuprian. [7, 14]  Linaria melampyroides Kuprian. [8, 4, 5, 7, 9]  Linaria pedicellata Kuprian. [8, 7, 10, 13, 14]  Plantago arachnoidea Schrenk [= Plantago lorata (J.Z.Liu) Shipunov  ≡ Plantago arachnoidea var. lorata J.Z.Liu] [14]  Plantago cornuti Gouan [2, 9, 10]  Plantago depressa Willd. [1−10, 12, 13]  Plantago maritima subsp. ciliata Printz [= Plantago salsa Pall.] [1−6, 8−11, 13, 14]
Papaver smirnovii (Peschkova) Kamelin & Gubanov]       [4, 9]         Papaver setosum (Tolm.) Peschkova [≡ Papaver rubroaurantiacum subsp. setosum Tolm.]       [4]         83. Phyllanthaceae Martinov (1 genus and 1 species) Flueggea suffruticosa Baill.       [5, 9]         84. Plantaginaceae Juss. (7 genera and 47 species)       [1, 3, 4, 5]         Callitriche hermaphroditica L.       [1-5, 7, 9-11, 14]         Hippuris vulgaris L       [1-11, 13, 14]         Lagotis integrifolia (Willd.) Schischk.       [1, 2, 3, 7, 13]         Linaria acutiloba Fisch. [≡ Linaria vulgaris Mill. subsp. acutiloba       [Fisch.) D.Y.Hong]       [1-4, 6-8, 13, 14]         Linaria altaica Fisch.       [3, 6, 7, 10, 14]       [1-6, 8, 9]         Linaria buriatica Turcz.       [1-6, 8, 9]         Linaria pepatica Bunge       [6, 7, 11, 13, 14]         Linaria melampyroides Kuprian.       [7, 14]         Linaria melampyroides Kuprian.       [3, 4, 5, 7, 9]         Linaria pedicellata Kuprian.       [6, 7, 10, 13, 14]         Plantago arachnoidea Schrenk [= Plantago lorata (J.Z.Liu) Shipunov       ≡ Plantago arachnoidea var. lorata J.Z.Liu         Elanarago depressa Willd.       [1-10, 12, 13]         Plantago major L.       [2-14]         Plantago major L.       [2-14]         Plantago maritima subsp. ciliata Printz [= Plantago salsa Pall.] [1-6, 8–11, 13, 14]
smirnovii (Peschkova) Kamelin & Gubanov] [4, 9] Papaver setosum (Tolm.) Peschkova [≡ Papaver rubroaurantiacum subsp. setosum Tolm.] [4]  83. Phyllanthaceae Martinov (1 genus and 1 species) Flueggea suffruticosa Baill. [5, 9]  84. Plantaginaceae Juss. (7 genera and 47 species) Callitriche hermaphroditica L. [1, 3, 4, 5] Callitriche palustris L. [1-5, 7, 9-11, 14] Hippuris vulgaris L. [1-11, 13, 14] Lagotis integrifolia (Willd.) Schischk. [1, 2, 3, 7, 13] Linaria acutiloba Fisch. [≡ Linaria vulgaris Mill. subsp. acutiloba (Fisch.) D.Y.Hong] [1-4, 6-8, 13, 14] Linaria altaica Fisch. [3, 6, 7, 10, 14] Linaria buriatica Turcz. [1-6, 8, 9] Linaria hepatica Bunge [6, 7, 11, 13, 14] Linaria incompleta Kuprian. [7, 14] Linaria melampyroides Kuprian. [3, 4, 5, 7, 9] Linaria pedicellata Kuprian. [6, 7, 10, 13, 14] Plantago arachnoidea Schrenk [= Plantago lorata (J.Z.Liu) Shipunov ≡ Plantago arachnoidea Var. lorata J.Z.Liu] [14] Plantago cornuti Gouan [2, 9, 10] Plantago depressa Willd. [1-10, 12, 13] Plantago major L. [2-14] Plantago major L. [2-14] Plantago maritima subsp. ciliata Printz [= Plantago salsa Pall.] [1-6, 8-11, 13, 14]
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$ \equiv \textit{Plantago arachnoidea} \ \text{var. lorata J.Z.Liu} ] \qquad [14] $
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Plantago major L. [2–14] Plantago maritima subsp. ciliata Printz [= Plantago salsa Pall.] [1–6, 8–11, 13, 14]
Plantago maritima subsp. ciliata Printz [= Plantago salsa Pall.] [1–6, 8–11, 13, 14]
Plantago minuta Pall. [3, 7, 8, 10–15]
Plantago polysperma Kar. & Kir. [10, 13, 15]
Plantago urvillei Opiz [2]
Veronica anagallis-aquatica L. [1–4, 7–16]
Veronica anagalloides Guss. [10]
Veronica arenosa (Serg.) Boriss. [= Veronica laeta auct. non Kar. & Kir.] [2, 3, 6, 7, 8, 14]
Veronica beccabunga L. [3, 7, 8]
Veronica biloba Schreb. [3, 6, 7, 14, 15]
Veronica ciliata Fisch. [1, 2, 3, 6, 7]

$J$ $\delta$	[, 5, 8, 9]
	[2, 7]
	[6, 7, 14]
Veronica hispidula Boiss. & Huet [= Veronica pusilla Hohen. & Boiss	.] [7]
Veronica incana L.	-11, 13]
Veronica krylovii Schischkin	[9]
Veronica linariifolia Link	-5, 8, 9
Veronica longifolia L. [1–4, 6,	7, 9, 10]
Veronica macrostemon Bunge	[1, 7]
Veronica oxycarpa Boiss. [= Veronica anagallis-aquatica subsp. oxycarpa (Boiss.) A. Jelen]	[7]
Veronica pinnata subsp. nana Polozhij	[7]
Veronica pinnata L. subsp. pinnata [2–4, 6–8	
Veronica porphyriana Pavlov	[7, 14]
Veronica sajanensis Printz	[7]
E Veronica sapozhnikovii Kosachev	[7, 14]
Veronica scutellata L.	[7]
Veronica × schmakovii Kosachev	[7]
Veronica × smirnovii Kosachev & D.A.German	[7]
Veronicastrum sibiricum (L.) Pennell [2, 4, 5]	5, 6, 7, 9]
Veronicastrum tubiflorum (Fisch. & C.A.Mey.) Soják	
[≡ Veronica tubiflora Fisch. & C.A.Mey.]	[4]
OF DI 1	
<b>85. Plumbaginaceae</b> Juss. (4 genera and 20 taxa)	Т.,,,,,,, 1
Armeria maritima subsp. sibirica (Turcz.) Nyman [≡ Armeria sibirica	[3, 7]
Goniolimon callicomum Boiss.	[7, 14]
Goniolimon eximium Boiss.	[7]
Goniolimon krylovii A.V.Grebenjuk	[7, 14]
,	4, 6–15]
-	3, 15, 16]
Limonium bicolor Kuntze [4, 6, 8, 9	
Limonium chrysocomum (Kar. & Kir.) Kuntze [3, 7, 10, 11	, 13–15]
·	', 11, 13]
	[6, 7, 10]
	5, 10, 14]
T	), 12, 13]
Limonium flexuosum Kuntze [1–4, 6–9	5, 10, 14]
_	[12]
Limonium gmelinii Kuntze	[12] [9]
Limonium gmelinii Kuntze  E Limonium gobicum IkonnGal.  E Limonium grubovii Lincz.	
Limonium gmelinii Kuntze  E Limonium gobicum IkonnGal.  E Limonium grubovii Lincz.	[9]

	Limonium tenellum Kuntze	[4, 8, 9, 11–13, 15,
	Plumbagella micrantha (Ledeb.) Spach	[3, 4]
	6. Poaceae Barnhart (58 genera and 229 taxa)	
	lote: The genus <i>Stipa</i> L. was recently revised which in pecies synopsis by Zhao et al (2019).	ncluded a taxonomic key and
_	Achnatherum caragana (Trin.) Nevski [= Stipa con	ferta Poir.] [7]
	Achnatherum confusum (Litv.) Tzvelev [≡ Stipa con	nfusa Litv.] [2, 3, 4]
SE	Achnatherum inebrians (Hance) Keng [≡ Stipa ined	brians Hance] [7, 12, 13, 16]
SE	Achnatherum pelliotii (Danguy) Röser & Hamash	na [≡ <i>Stipa pelliotii</i> Danguy]
		[7, 11–16]
	Achnatherum sibiricum (L.) Keng [ $\equiv$ Stipa sibirica	(L.) Lam.] [1–13]
	Aeluropus littoralis (Gouan) Parl.	[10, 14, 15]
	Agropyron cristatum (L.) Gaertn. [ $\equiv Bromus\ cristat$	tus L.] $[1-7, 9-15]$
	Agropyron desertorum Schult.	[3, 6–9, 11–13, 15]
	Agropyron fragile (Roth) P.Candargy	[6, 8, 9, 11, 12, 14]
	Agropyron krylovianum Schischk. [≡ Kengyilia kry	loviana
	(Schischk.) C.Yen, J.L.Yang & B.R.Baum]	[4, 6, 7]
	Agropyron michnoi Roshev. $[\equiv Agropyron\ cristatum]$	<i>i</i> (L.)
	Gaertn. subsp. <i>michnoi</i> (Roshev.) A.Löve]	[1, 3–5, 8–10, 13, 14]
	Agropyron pumilum (Steud.) P.Candargy	[6, 10, 14]
	Agrostis clavata Trin. [ $\equiv$ Agrostis exarata subsp. cla	vata (Trin.) T.Koyama]
		[1, 2, 3, 4, 5, 9]
	Agrostis divaricatissima Mez [= Agrostis mongolica	
	Agrostis gigantea Roth	[1–7, 9, 10, 13, 14]
	Agrostis stolonifera L.	[1, 3, 4, 7-10, 14]
SE	Agrostis tuvinica Peschkova	[1, 2]
	Agrostis vinealis Schreb. [= Agrostis trinii Turcz.]	[1-10, 13]
	Alopecurus aequalis Sobol.	[1-10, 12]
	Alopecurus arundinaceus Poir.	[1-10, 12-14]
	Alopecurus brachystachyus M.Bieb.	[1-10, 13]
	Alopecurus pratensis L.	[3, 4, 6, 8-10, 13, 14]
SE	Alopecurus turczaninovii O.D.Nikif.	[1–4, 6–8, 13]
	Anthoxanthum glabrum (Trin.) Veldkamp [ $\equiv Hier$	
	Anthoxanthum monticola (Bigelow) Veldkamp [≡	· ·
		[1–3, 6, 7, 10]
	Anthoxanthum nitens (Weber) Y.Schouten & Veld	*
	[\equiv Poa nitens Weber = Hierochloe odorata (L.) P.Bo	
	Anthoxanthum odoratum L.	[2, 3, 4, 5, 7]
	Arctagrostis latifolia Griseb.	[1,2,3]
	Arctopoa schischkinii (Tzvelev) Prob. [≡ Poa schisch	
	Arctopoa tibetica (Munro) Prob. [≡ Poa tibetica M	[1, 3, 6–8, 10–15]

	Aristida adscensionis L. [3, 8–13, 15, 16]
	Arundinella hirta (Thunb.) Tanaka [ $\equiv Poa\ hirta$ Thunb.] [4, 5, 9]
	Beckmannia syzigachne Fernald [1–6, 8–16]
	Brachypodium pinnatum (L.) P.Beauv. $[\equiv Bromus pinnatus L.]$ [3, 4]
	Bromus inermis Leyss. [1–10, 12–15]
	Bromus japonicus Thunb. [6, 7, 10, 12, 14]
	Bromus oxyodon Schrenk [7, 11, 14]
	Bromus pumpellianus Scribn. [= Bromus korotkiji Drobow] [3, 4, 7–11, 13]
	Bromus scoparius L. [14]
	Bromus squarrosus L. [10]
	Bromus tectorum L. [7, 14]
	Calamagrostis angustifolia Kom. [= Calamagrostis angustifolia subsp. tenuis (V.N.Vassil.) Tzvelev] [1–11, 13, 14]
	Calamagrostis epigejos (L.) Roth [= Calamagrostis epigejos subsp.  glomerata (Boiss. & Buhse) Tzvelev] [2, 4, 5, 9]
	Calamagrostis inexpansa A.Gray [= Calamagrostis inexpansa subsp.  micrantha (Kearney) Stebbins] [2, 3, 4, 5]
	Calamagrostis korotkyi Litv. [≡ Deyeuxia korotkyi (Litv.) S.M.Phillips & W.L.Chen] [1, 2, 3, 4, 6]
SE	Calamagrostis × kuznetzovii Tzvelev [4]
	Calamagrostis lapponica (Wahlenb.) Hartm. [≡ Arundo lapponica Wahlenb.]
	[1-4, 6-8, 10, 13-15]
	Calamagrostis macilenta Litv. [1–4, 7–13, 15]
	Calamagrostis macrolepis Litv. [≡ Calamagrostis epigejos subsp.
	macrolepis (Litv.) Tzvelev] [2, 3, 4]
	Calamagrostis obtusata Trin. [3, 4]
	Calamagrostis pavlovii (Roshev.) Roshev. [1–4, 7, 8, 10, 11]
	Calamagrostis pseudophragmites (Haller f.) Koeler
	$[\equiv Arundo\ pseudophragmites\ Haller\ f.]$ [1–7, 9]
	Calamagrostis purpurea (Trin.) Trin. $[\equiv Arundo\ purpurea\ Trin.]$ [2, 3, 4, 10]
SE	Calamagrostis sajanensis Malyschev [8, 9, 10, 13]
	Calamagrostis salina Tzvelev [1–5, 8, 9, 13]
	Calamagrostis stricta (Timm) Koeler $[\equiv Arundo\ stricta\ Timm]$ [2]
	Catabrosa aquatica (L.) P.Beauv. [2–4, 8–10, 13]
	Cenchrus flaccidus (Griseb.) Morrone $[\equiv Pennisetum flaccidum Griseb.]$
	[10, 12]
	Cinna latifolia (Trevir.) Griseb. $[\equiv Agrostis \ latifolia \ Trevir.]$ [2, 3, 4]
SE	Cleistogenes caespitosa Keng [12]
SE	Cleistogenes festucacea Honda [= Cleistogenes foliosa Keng] [4, 12, 13]
	Cleistogenes kitagawae Honda [≡ Kengia kitagawae (Honda) Packer]
	[2-5, 8, 9]
	Cleistogenes songorica (Roshev.) Ohwi [4, 7–16]
	Cleistogenes squarrosa (Trin.) Keng [2–13]

	Colpodium altaicum Trin.	[1, 7]
	Deschampsia caespitosa P.Beauv. subsp. caespitosa	[1-4, 6, 7, 8]
	Deschampsia caespitosa subsp. orientalis Hultén	[1, 2, 3, 4, 5]
	Deschampsia caespitosa subsp. pamirica (Roshev.) Tzvelev	V
	[≡ <i>Deschampsia pamirica</i> Roshev.]	[1, 3]
	Deschampsia koelerioides Regel	[1, 2, 3, 6, 7]
	Echinochloa crus-galli (L.) P.Beauv.	[4, 7, 9, 12, 13]
	Elymus bungeanus (Trin.) Melderis	[2, 4, 6, 7, 12, 14, 15]
	Elymus confusus (Roshev.) Tzvelev	
	[≡ <i>Roegneria confusa</i> (Roshev.) Nevski]	[1-4, 7, 8, 13]
	Elymus dahuricus Turcz.	[1-10, 13]
	Elymus fedtschenkoi Tzvelev [≡ Roegneria fedtschenkoi (T:	zvelev)
	J.L.Yang & C.Yen]	[7]
	Elymus gmelinii (Ledeb.) Tzvelev	[1-5, 7, 8, 9, 13]
SE	Elymus karakabinicus Kotukhov	[7]
	Elymus macrourus (Turcz.) Tzvelev [= Elymus kronokensis	s (Kom.) Tzvelev,
	Elymus kronokensis subsp. subalpinus (Neuman) Tzve	elev] [1, 4, 7]
	Elymus mutabilis (Drobow) Tzvelev [= Elymus transbaica	alensis (Nevski)
	Tzvelev = <i>Elymus praecaespitosus</i> (Nevski) Tzvelev]	[1, 2, 3, 4, 6, 7]
	Elymus nutans Griseb.	[3, 4, 9, 13]
	Elymus pendulinus (Nevski) Tzvelev [= Agropyron vernica	osum Nevski
	= Elymus brachypodioides (Nevski) Peschkova]	[4, 5, 7, 9, 12, 13, 16]
	Elymus reflexiaristatus (Nevski) Melderis [= Elymus aegile	opoides
	(Drobow) Vorosch.]	[1-7, 12, 13, 14]
	Elymus repens (L.) Gould [= Elytrigia repens (L.) Nevski]	[2–11, 13–15]
	Elymus schrenkianus (Fisch. & C.A.Mey.) Tzvelev	
	[= <i>Elymus pamiricus</i> Tzvelev]	[3, 4, 7, 13]
	Elymus sibiricus L.	[1–10, 12–16]
	Elymus uralensis (Nevski) Tzvelev [= Elymus uralensis sub	osp.
	komarovii (Nevski) Tzvelev]	[2, 3, 4, 6, 13]
	Elymus varius (Keng) Tzvelev	[4]
	Enneapogon desvauxii P.Beauv.	[3, 4, 6-15]
	Eragrostis cilianensis (All.) Vignolo	[10]
	Eragrostis minor Host	[2, 3, 4, 6-16]
	Eragrostis pilosa (L.) P.Beauv. [= Eragrostis pilosa subsp.	
	imberbis (Franch.) Tzvelev]	[2, 4, 7-10, 12]
	Eremopyrum distans (K.Koch) Nevski	[14]
	Festuca altaica Trin.	[1, 3, 4, 6, 7]
	Festuca brachyphylla Schult. & Schult.f.	[1, 3, 6, 7, 13]
	Festuca dahurica V.I.Krecz. & Bobr.	[2, 4, 5, 9]
	Festuca extremiorientalis Ohwi	[2]
SE	Festuca hubsugulica Krivot. [= Festuca sumneviczii Serg.]	[1]
	Festuca jacutica Drobow	[4, 9]

	Festuca komarovii Krivot.	[1, 2]
	Festuca kryloviana Reverd.	[1-4, 6, 7, 9, 13]
	Festuca kurtschumica E.B.Alexeev	[7]
	Festuca lenensis Drobow	[1–9, 13, 15]
	Festuca litvinovii (Tzvelev) E.B.Alexeev	[9]
	Festuca oreophila MarkgrDann. [= Festuca valesiaca si	
	hypsophila (StYves) Tzvelev]	[1-4, 6, 7, 13, 14]
	Festuca ovina L. [= Festuca ovina subsp. sphagnicola (B	
		[1–7, 9, 13]
SE	Festuca pseudosulcata Drobow	[4]
	Festuca rubra L.	[1–9, 13]
	Festuca sibirica Hack.	[1–5, 8–10, 13]
	Festuca tristis Krylov & Ivanitzk.	[3, 6, 7]
SE	Festuca tschujensis Reverd.	[3, 6, 7, 10]
	Festuca valesiaca Schleich.	[1–10, 13]
	Festuca venusta StYves	[1, 2, 3, 4]
	Glyceria arundinacea Kunth	[1-10, 14]
	Glyceria lithuanica (Gorski) Gorski	[3, 5]
	Glyceria spiculosa Roshev. [= Glyceria longiglumis Hand	
	Helictochloa dahurica (Kom.) Romero Zarco	
	[≡ <i>Helictotrichon dahuricum</i> (Kom.) Kitag.]	[1, 4, 5]
	Helictochloa hookeri (Scribn.) Romero Zarco	F > > 3
	[= Helictotrichon schellianum (Hack.) Kitag.]	[1–9, 13]
	Helictotrichon desertorum (Less.) Pilg.	<b>L</b> , <b>u</b>
	[= Helictotrichon altaicum Tzvelev]	[3, 6, 7]
	Helictotrichon mongolicum (Roshev.) Henrard	
	[≡ Avenastrum mongolicum (Roshev.) Roshev.]	[1-3, 6, 7, 13]
	Helictotrichon pubescens (Huds.) Pilg.	<u> </u>
	[= Hordeum brevisubulatum subsp. turkestanicum	(Nevski) Tzvelev]
	-	[3, 4, 7, 9]
	Hordeum bogdanii Wilensky	[3, 7, 9, 10, 14–16]
	Hordeum brevisubulatum Link	
	[= Hordeum brevisubulatum subsp. turkestanicum (N	Vevski) Tzvelev] [1–16]
	Hordeum roshevitzii Bowden	, , ,
	[≡ Critesion roshevitzii (Bowden) Tzvelev]	[1, 2, 4, 8–11, 13]
	Koeleria altaica (Domin) Krylov	[1–10, 13]
	Koeleria asiatica Domin	[2, 8]
	Koeleria glauca DC.	[4]
	Koeleria litvinowii Domin	[1, 3, 7, 13]
	Koeleria macrantha (Ledeb.) Schult.	[1–5, 8–13]
	Koeleria spicata subsp. mongolica (Hultén ) Barberá, Ç	
	P.M.Peterson [ $\equiv$ Trisetum spicatum subsp. mongoli	
		[1-4, 6, 7, 13]
		-

SE	Koeleria thonii Domin	[5]
	Leymus angustus (Trin.) Pilg. [≡ Elymus angustus Trin.]	[3, 6, 7, 10–14, 16]
	Leymus chinensis (Trin.) Tzvelev	[1–6, 8–14]
SE	Leymus ordensis Peschkova	[15]
	Leymus paboanus (Claus) Pilg.	[3, 6–8, 10–14]
	Leymus racemosus (Lam.) Tzvelev	[3, 5, 6, 8-13]
	Leymus ramosus (K.Richt.) Tzvelev [≡ Agropyron ramosun	<i>n</i> K.Richt.] [5, 9]
	Leymus secalinus (Georgi) Tzvelev [= Leymus secalinus van	<b>.</b>
	mongolicus (Meld.) Tzvelev = Leymus ovatus (Trin.) T	[1-4, 6-16]
	Melica nutans L.	[1, 2, 4]
	Melica transsilvanica Schur	[7]
	Melica turczaninowiana Ohwi	[2, 3, 4, 5, 9]
	Melica virgata Turcz.	[1-5, 8-10, 12, 13]
	Milium effusum L.	[2]
	Nardus stricta L.	[3]
	Neotrinia splendens (Trin.) M.Nobis	
	$[\equiv$ Achnatherum splendens (Trin.) Nevski $\equiv$ Stipa sple	endens Trin.]
		[2-5, 7-16]
	Phalaris arundinacea L.	[1-5, 7, 9, 10, 14]
	Phleum alpinum L.	[7]
	Phleum phleoides (L.) H.Karst.	[2–4, 6–8, 10]
	Phragmites australis (Cav.) Steud.	[1–16]
	Piptatherum songaricum (Trin. & Rupr.) Roshev.	[7, 14]
	Poa alpina L.	[1, 3, 6, 7, 15]
	Poa alta Hitchc. [= Poa mongolica (Rendle) Keng]	[2, 5]
	Poa altaica Trin. [≡ Poa glauca subsp. altaica (Trin.) Olo	nova & G.H.Zhu]
		[1-3, 6, 7, 10, 13]
	Poa angustifolia L. [≡ Poa pratensis subsp. angustifolia (L.	.) Dumort.] [2, 3, 4,
		5, 9]
	Poa annua L. [≡ Ochlopoa annua (L.) H.Scholz]	[2, 7, 9]
	Poa argunensis Roshev.	[1-11, 13, 15]
	Poa attenuata Trin. subsp. attenuata .	[1–4, 6–10, 12–14]
	Poa attenuata subsp. botryoides (Trin.) Tzvelev	[1, 3-9, 13]
	Poa attenuata subsp. dahurica (Trin.) Gubanov [≡ Poa da	ahurica Trin.]
		[1-4, 7-13]
	Poa attenuata subsp. tshuensis (Serg.) Olonova	
	[≡ Poa argunensis f. tshuensis Serg.]	[1–4, 6–10, 12–15]
	Poa glauca Vahl	[1, 3, 6, 7, 13]
	Poa ircutica Roshev.	[4]
SE	Poa kenteica Ivanova	[2, 3]
	Poa krylovii Reverd. [≡ Poa urssulensis subsp. krylovii (Re	
		[2, 3, 4, 7, 8]
	Poa nemoralis L.	[1-5, 8, 9]

	Poa palustris L.	[1–5, 7, 8, 9, 13]
	Poa pratensis L. [= Poa pratensis subsp. sabulosa (Turcz.) T	[1–10, 13, 14]
	Poa raduliformis Prob.	[2, 7]
	Poa sibirica Roshevitz	[1–7, 10, 13]
	Poa smirnowii Roshev.	[1, 3, 4, 6, 7]
	Poa subfastigiata Trin.	[1–6, 8–10, 13]
	Poa supina Schrad.	[3, 4, 7]
	Poa tianschanica Hack.	[1–10, 13]
	Poa trivialis L.	[1]
	Poa urssulensis Trin.	[2, 3, 5]
	Poa veresczaginii Tzvelev	[7]
	Poa versicolor subsp. reverdattoi (Roshev.) Olonova &	
	[≡ <i>Poa reverdattoi</i> Roshev.]	[1, 3, 5–10, 13, 14]
	Poa versicolor Besser subsp. versicolor	[-,0,5,, -0,]
	[= <i>Poa versicolor</i> subsp. <i>stepposa</i> (Krylov) Tzvelev]	[1–9, 11, 13]
	Polypogon maritimus Willd.	[11, 15]
	Polypogon monspeliensis (L.) Desf.	[7, 10, 11, 13, 15, 16]
SE	Psammochloa villosa (Trin.) Bor	[3, 9–13, 16]
	Psathyrostachys juncea (Fisch.) Nevski	[3, 6, 7, 10, 12–15]
	Psathyrostachys lanuginosus (Trin.) Nevski	[7, 14]
	Ptilagrostis mongholica (Turcz.) Griseb. [≡ Stipa mongh	
		[1, 2, 3, 4, 7]
	Puccinellia altaica Tzvelev	[14]
	Puccinellia distans (Jacq.) Parl.	[11, 13, 14]
SE	Puccinellia filifolia (Trin.) Tzvelev	[8, 12]
	Puccinellia hackeliana (V.I.Krecz.) V.I.Krecz.	[7]
	Puccinellia hauptiana (V.I.Krecz.) Kitag.	[3–11, 13, 14]
	Puccinellia macranthera V.I.Krecz.	[2–5, 7–10, 12, 14]
	Puccinellia manchuriensis Ohwi	[3]
	Puccinellia nudiflora (Hack.) Tzvelev	[7, 13]
SE	Puccinellia przewalskii Tzvelev	[10]
	Puccinellia schischkinii Tzvelev	[5, 8, 10, 12, 13, 15]
	Puccinellia tenuiflora Scribn. & Merr. [= Puccinellia kr	
	J	[1–16]
	Schismus arabicus Nees	[4, 7, 11, 14]
	Schizachne purpurascens subsp. callosa (Turcz.) T.Koyar	
		[2, 3, 4, 5]
	Scolochloa festucacea Link	[4]
	Sibirotrisetum sibiricum (Rupr.) Barberá [≡ Trisetum si	
	` 1 /	[1–5, 7–10, 13]
	Spodiopogon sibiricus Trin.	[2, 3, 4, 5, 8, 9]
	Sporobolus aculeatus (L.) P.M.Peterson [ $\equiv$ Crypsis aculeata	• • • • • • • • •
	Sporobolus schoenoides (L.) P.M.Peterson [ $\equiv Crypsis$ schoen	

E	Stipa austromongolica M.Nobis	[10]
	Stipa baicalensis Roshev.	[1-5, 7, 8, 9, 12]
	Stipa breviflora Griseb.	[7, 8, 9, 12, 13]
	Stipa capillata L.	[3, 4, 7, 10, 12]
	Stipa caucasica Schmalh. subsp. caucasica	[7, 10–14, 16]
	Stipa caucasica subsp. desertorum (Roshev.) Tzvelev	[10]
	Stipa consanguinea Trin. & Rupr.	[2, 7, 10]
	Stipa glareosa f. pubescens P.A.Smirn.	[4–12]
	Stipa glareosa P.A.Smirn. [≡ Stipa caucasica subsp. glare	eosa (P.A.Smirn.) Tzvelev]
		[3, 6–16]
	Stipa gobica Roshev.	[3, 4, 6-16]
	Stipa grandis P.A.Smirn.	[3, 4, 5, 8, 9]
E	Stipa khovdensis L.Q.Zhao	[3, 6]
	Stipa kirghisorum P.A.Smirn.	[3, 7, 10, 14]
	Stipa klemenzii Roshev.	[3, 4, 6, 8, 9–13]
	Stipa krylovii Roshev.	[1-14]
	Stipa mongolorum Tzvelev	[7, 8, 10, 11, 12]
	Stipa orientalis Trin.	[1, 3, 6, 7, 10, 11, 14]
	Stipa pennata <b>L.</b> subsp. <i>pennata</i>	[3, 4]
	Stipa pennata subsp. sabulosa (Pacz.) Tzvelev	[10]
	Stipa sareptana A. Beck.	[3, 7, 10, 11, 13]
	Stipa sczerbakovii Kotuch.	[7]
	Stipa tianschanica Roshev. [= Stipa tianschanica subs	sp. gobica (Roshev.) D.F.
Cui	= Stipa tianschanica var. klemenzii (Roshev.) Norl. ]	[3, 4, 6-16]
	<i>Stipa zalesskii</i> Wilensky	[3, 7, 10]
	Timouria saposhnikowii Roshev. [= Stipa saposhnikowi	ii (Roshev.) Kitag.]
		[13, 15]
	Tragus mongolorum Ohwi	[12, 13]
	Tripogon chinensis Hack.	[2, 4, 5, 8, 9, 12]
	Tripogon purpurascens Duthie	[12, 13, 16]
	Trisetum altaicum Roshev.	[1, 2, 3, 6, 7]
	Zizania latifolia Turcz.	[9]
	97 Delementario (2 annon and 4 annoise)	
	<b>87. Polemoniaceae</b> Juss. (2 genera and 4 species)	[1 //]
	Phlox sibirica L. Polemonium boreale Adams	[1, 4]
		[1, 3, 6]
	Polemonium chinense Brand	[1–7, 9]
	Polemonium pulchellum Bunge	[1, 3, 6]
	88. Polygalaceae Hoffmanns. & Link (1 genus and 3 spe	ecies)
	Polygala comosa Schkuhr [= Polygala hybrida DC.]	[1–4, 6, 7, 14]
	Polygala sibirica L.	[1, 2, 3, 4, 5, 9]
	Polygala tenuifolia Willd.	[1–5, 8, 9, 12, 13]
		_

	89. Polygonaceae Juss. (11 genera and 63 taxa)	
	Atraphaxis bracteata Losinsk.	[3, 6, 7, 9, 10–16]
	Atraphaxis compacta Ledeb.	[13, 14, 15]
	Atraphaxis frutescens (L.) K.Koch	[3, 5, 6, 7, 9-16]
E	Atraphaxis kamelinii Yurtseva	[14]
	Atraphaxis pungens Jaub. & Spach	[2–16]
	Atraphaxis spinosa L.	[14, 15]
	Atraphaxis virgata (Regel) Krassn.	[7, 10, 12, 14,–16]
	Bistorta elliptica (Willd.) V.V.Petrovsky	[1, 2, 3, 6, 7]
SE	Calligonum ebinuricum Ivanova	[14, 15]
	Calligonum junceum (Fisch. & C.A.Mey.) Litv.	[14, 15]
	Calligonum litwinowi Drobow [= Calligonum gobicum	<i>i</i> Losinsk.] [14, 15]
	Calligonum mongolicum Turcz.	[7, 10–16]
	Fallopia convolvulus (L.) Á.Löve [≡ Polygonum convolv	vulus L.] $[2-5,$
		8–10, 12, 15]
	Fallopia dumetorum (L.) Holub	[5]
	Knorringia sibirica (Laxm.) Tzvelev subsp. sibirica	[1-16]
	Knorringia sibirica subsp. ubsunurica Tzvelev	[10]
	Koenigia islandica L.	[1-3, 6, 7, 10, 13]
	Oxyria digyna Hill	[1, 2, 3, 6, 7, 13]
	Persicaria alpina Gross.	[1-4, 6, 7, 8, 14]
	Persicaria amphibia (L.) Delarbre	[1, 3-12, 14]
	Persicaria bistorta Samp.	[2]
	Persicaria bungeana Nakai	[1-3, 5, 7-10, 13]
	<i>Persicaria hydropiper</i> (L.) Delarbre [≡ <i>Polygonum hydro</i>	* *
		6–8, 10, 13, 14]
	Persicaria lapathifolia (L.) Delarbre [≡ Polygonum ochr	reatum L.] [1–16]
	Persicaria longiseta var. rotundata (A.J.Li) B.Li [	Fo. / -7
	≡ Polygonum longisetum var. rotundatum A.J.Li ]	[2, 4, 8]
	Persicaria minor (Huds.) Opiz	[10, 14]
	Persicaria sagittata (L.) H.Gross	[2, 3, 4, 5, 8, 9]
	Persicaria vivipara (L.) Ronse Decr.	[1-4, 6-8, 10, 13, 14]
	Polygonum abbreviatum Kom.	[1,2,7]
	Polygonum alopecuroides Turcz.	[1-6, 8]
	Polygonum angustifolium Pall.	[1–5, 7–9, 11, 13]
	Polygonum arenastrum Boreau	[1, 3, 7, 10, 14]
	Polygonum argyrocoleon Steud.	[7, 10, 11, 13–15]
	Polygonum aviculare L.	[1–5, 7–14, 16]
	Polygonum cognatum Meisn.	[3, 4, 6, 7, 8, 10]
	Polygonum divaricatum L.	[1-5, 8, 9]
	Polygonum ellipticum Willd.	[1, 2, 3, 6, 7]
	Polygonum humifusum C.Merck	[3]
	Polygonum intramongolicum Borodina	[12, 13]

	Polygonum novoascanicum Klokov	[14]
	Polygonum patulum M.Bieb.	[3, 7, 9, 10, 14, 15]
	Polygonum polycnemoides Jaub. & Spach	[7, 14]
	Polygonum sericeum Pall.	[2, 3, 4, 8, 9]
	Polygonum tenuissimum A.I.Baranov & Skvortsov	[9]
	Polygonum valerii A.K.Skvortsov	[2, 4, 5, 8]
	Polygonum volchovense Tzvelev	[7]
	Rheum compactum L.	[1–4, 6, 7, 12–14]
	Rheum nanum Siev.	[7, 8, 10–16]
	Rheum rhabarbarum L. [= Rheum undulatum L.]	[1–5, 7–9, 12–14]
SE	Rheum uninerve Maxim.	[13]
	Rumex acetosa L.	[1, 2, 3, 6, 7]
	Rumex acetosella L.	[1–5, 8, 9]
	Rumex aquaticus L.	[1-10, 14]
	Rumex crispus L.	[1, 7, 9, 10, 14]
	Rumex gmelinii Turcz.	[2, 3, 4, 5, 8, 9]
	Rumex maritimus L.	[2–5, 8–11, 14]
	Rumex marschallianus Rchb.	[6, 8, 9, 10, 11]
	Rumex patientia L.	[7, 9, 13, 14]
	Rumex popovii Pachom.	[10, 13]
	Rumex pseudonatronatus (Borbás) Murb.	[11, 13]
	Rumex similans Rech.f.	[2-4, 6, 7, 10-12, 14, 15]
	Rumex stenophyllus Ledeb.	[2-4, 6, 7, 9, 10, 14, 15]
	Rumex thyrsiflorus Fingerh.	[1–14]
90.	Potamogetonaceae Bercht. & J.Presl (3 genera and	l 18 taxa)
	Potamogeton angustifolius Bercht. & J.Presl	[10]
	Potamogeton alpinus subsp. tenuifolius (Raf.) Hulter	F 3
	Potamogeton berchtoldii Fieber	[3, 6, 7, 9]
	Potamogeton compressus L.	[1, 8, 9, 10, 14]
	Potamogeton crispus L.	[1, 8, 10]
	Potamogeton friesii Rupr.	[5, 8, 9]
	Potamogeton gramineus L.	[1–10, 14]
	Potamogeton lucens L.	[1, 8, 10]
	Potamogeton mandschuriensis A.Benn.	[5]
	Potamogeton natans L.	[1, 5–7, 10, 11]
	Potamogeton obtusifolius Mert. & W.D.J.Koch	[1, 3, 5]
	Potamogeton perfoliatus L.	[1–12, 14, 16]
	Potamogeton praelongus F.Muell.	[1-5, 8, 9]
	Potamogeton pusillus L.	[1–6, 8–11, 13, 14]
	Stuckenia filiformis (Pers.) Börner [≡ Potamogeton fi	liformis Pers.]
		[1, 3, 6–11, 13, 15]

Stuckenia pectinata (L.) Börner [≡ Potamogeton pectinatu	s L.] [1–10, 11]
Stuckenia vaginata Holub	[1, 3–8, 10, 11, 13]
Zannichellia palustris L. [= Zannichellia palustris subsp.	
pedicellata (Rosén & Wahlenb.) Hook.f.]	[3, 4, 7-11, 15]
91. Primulaceae Batsch (3 genera and 28 taxa)	
Note: The genus <i>Primula</i> L. was recently revised by Baasann	
Androsace fedtschenkoi Ovcz.	[1, 6, 7, 13]
Androsace filiformis Retz.	[1, 2, 3, 4, 5, 9]
Androsace gmelinii Gaertn.	[2, 3, 9, 11]
Androsace incana Lam.	[1–9, 13]
Androsace lactiflora Fisch. [= Androsace amurensis Prob.]	
Androsace lehmanniana Spreng. [= Androsace bungeana S	
	[1, 2, 3, 6, 7, 9]
Androsace longifolia Turcz.	[5,9]
Androsace maxima L.	[2-4, 6-10, 13-15]
Androsace ovczinnikovii Schischk. & Bobrov	[3, 6, 7]
Androsace septentrionalis L.	[1-9, 12-14]
Androsace villosa L. var. dasyphylla (Bunge) Kar. & Kir.	
[≡ Androsace dasyphylla Bunge]	[1, 2, 3, 6, 7, 13]
Lysimachia davurica Ledeb.	[2, 3, 4, 5, 9, 14]
Lysimachia europaea (L.) U.Manns & Anderb. [≡ Trienta	
	[1, 2, 3, 4, 5]
Lysimachia maritima (L.) Galasso [= Glaux maritima L.]	
Lysimachia thyrsiflora L. [ $\equiv$ Naumburgia thyrsiflora (L.) F	Rchb.] [2–5, 9, 10, 14]
Primula algida Adams	[1–3, 6, 7, 11, 13]
Primula bukukunica Kovt.	[7, 11, 13]
Primula cortusoides L.	[3]
	[1-4, 6, 7, 10, 13, 15]
Primula longiscapa Ledeb.	[3, 6, 7, 10, 13, 14]
Primula matthioli subsp. altaica (Losinsk.) Kovt. $[\equiv Corn$	
	[1, 2, 3, 7, 13, 14]
Primula matthioli subsp. brotheri (Pax) Kovt. [≡ Cortusa m	atthioli f. brotheri Pax]
Primula maximowiczii Regel	[7] [5]
Primula nivalis subsp. nivalis Pall.	[1, 2, 3, 6, 7, 10]
Primula nivalis subsp. turkestanica (J.N.Haage & E.Schi	
Primula nivalis subsp. xanthobasis (Fed.) Halda	[1, 2, 3]
Primula nutans Georgi	[1–7, 9, 10, 11]
Primula serrata Georgi	[1–5, 7–10, 13]
O	[ -,, -0]

## **92. Ranunculaceae** Juss. (20 genera and 156 taxa)

Note: In regards to the phylogeny and position of *Actea* and *Cimcifuga*, we follow Compton et al. (1998). *Anemone* is considered here according to Hoot (2012) with some changes leaving *Pulsatilla* at generic level (Sramkó et al. 2019). The taxonomy of the tribe Ranunculae is given according to Emadzade (2010) and Wang et al. (2014). The taxonomical positions of some taxa have been changed according to taxonomic works (Solovjev 1998; Erst 2007). Previously, four species of *Batrachium* were recorded in Mongolia which are treated as a synonym of *Ranunculus* by Wiegleb et al. (2017). Taxonomic revision of the genus *Aquilegia* L. was carried out by Erst et al. (2016).

	Aconitum ambiguum Rchb.	[1, 2, 3, 4, 10]
	Aconitum anthoroideum DC.	[3, 7]
	Aconitum baicalense Turcz. [≡ Aconitum ambiguum Ro	chb. subsp. <i>baicalense</i>
	(Turcz.) Vorosch.]	[2, 3, 4, 5, 9]
	Aconitum barbatum Patr.	[1-4, 6-8, 10, 11, 13]
	Aconitum biflorum Fisch.	[3, 7]
	Aconitum coreanum (H.Lév.) Rapaics	[5]
	Aconitum decipiens Vorosch. & Anfalov	[3, 7]
	Aconitum glandulosum Rapaics [=Aconitum altaicum S	Steinb.
	= Aconitum smirnovii Steinb.]	[1-4, 6, 7, 13, 14]
E	Aconitum gubanovii Luferov & Vorosch.	[7, 14]
E	Aconitum kamelinii A.A.Solovjev [= Aconitum chasma	nthum Stapf] [3, 13]
SE	Aconitum khanminthunii A.A.Solovjev & Shmakov	[3, 6, 7, 11, 13]
	Aconitum kusnezoffii Rchb. [= Aconitum birobidshanic	<i>um</i> Vorosch.] [5, 9]
	Aconitum leucostomum Vorosch.	[6, 7, 8, 10]
	Aconitum macrorhynchum Turcz.	[4]
SE	Aconitum paskoi Vorosch.	[2, 3]
	Aconitum ranunculoides Turcz.	[4]
SE	Aconitum rubicundum (Ser.) Fisch. [≡ Aconitum septen	ntrionale subsp. rubicun-
	dum (Ser.) Vorosch.]	[1]
	Aconitum septentrionale Koelle	[1-4, 6, 7, 8]
SE	Aconitum turczaninowii Vorosch.	[2, 3, 4, 5, 9]
	Aconitum volubile Koelle	[2, 3, 7]
	Actaea cimicifuga L. [≡ Cimicifuga foetida L.]	[1, 2, 3, 4]
	Actaea dahurica (Turcz.) Franch. [≡ Cimicifuga dahur	ica (Turcz.) Maxim.]
		[2, 5, 9]
	Actaea erythrocarpa (Fisch.) Kom.	[1, 2, 3, 4]
	Actaea simplex Prantl	[5]
	Adonis apennina L. [= Adonis sibirica Patrin]	[1, 2, 3, 4, 6, 8]
E	Adonis mongolica Simonovich	[1, 2, 3, 4, 8]
	Anemonastrum crinitum (Juz.) Holub [≡ Anemone nar	rcissiflora subsp.
	crinita (Juz.) Kitag.]	[1, 2, 3, 4, 6, 7]
	Anemonastrum dichotomum (L.) Mosyakin [≡ Anemon	ne dichotoma L.]
		[2, 3, 4, 5, 9]

	Anemonastrum obtusilobum (D.Don) Mosyakin [≡ Anen	
	4	[3]
	Anemonastrum sibiricum (L.) Holub [≡ Anemone sibirica	
	Anemone reflexa Steph.	[2, 3, 4]
	Anemone sylvestris L. [≡ Anemonoides sylvestris (L.) Galas	
	Aquilegia amurensis Kom.	[2]
Е	Aquilegia aradanica Shaulo & Erst	[4]
E	Aquilegia daingolica Erst & Shaulo	[7]
	Aquilegia ganboldii Kamelin & Gubanov	[5]
Г	Aquilegia glandulosa Fisch.	[1, 4, 6, 7]
E	Aquilegia grubovii Erst	[1, 2, 3, 4]
	Aquilegia jucunda Fisch. & Lallem.	[1]
	Aquilegia sibirica Lam.	[1, 2, 3, 4, 6, 7]
	Aquilegia viridiflora Pall.	[2–5, 7–10, 12, 13]
	Aquilegia xinjiangensis Erst	[7]
	Callianthemum angustifolium Witasek	[7]
	Callianthemum isopyroides Witasek	[1, 2, 3]
	Callianthemum sajanense Witasek	[1, 3, 7]
	Caltha membranacea (Turcz.) Schipcz.	[5]
	Caltha natans (Pall.) Deyl & Sojak	[1-5, 8, 10, 11]
	Caltha palustris L.	[1-5, 9-11]
	Ceratocephala testiculata (Crantz) Besser	[7]
	Clematis aethusifolia Turcz.	[9]
	Clematis brevicaudata DC.	[5, 9]
SE	Clematis fruticosa Turcz.	[11–13, 15, 16]
	Clematis glauca Willd.	[3, 7, 10, 14, 15]
	Clematis hexapetala Pall.	[2, 4, 5, 8, 9]
	Clematis intricata Bunge	[7-14, 16]
	Clematis macropetala Ledeb.	[9]
	Clematis ochotensis (Pall.) Poir. & Lam.	[4]
	Clematis orientalis L.	[15]
	Clematis sibirica (L.) Mill.	[1–4, 6–8, 10, 13]
	Clematis songarica Siev.	[7, 11–16]
SE	Clematis tangutica subsp. mongolica Grey-Wilson	[2]
	Clematis tangutica Korsh. subsp. tangutica	[2–4, 7, 8, 10, 13–15]
	Delphinium altaicum Nevski	[6, 7, 13, 14]
	Delphinium barlykense Lomon. & Khanm.	[1, 6, 7]
E	Delphinium changaicum N.Friesen	[3, 13]
	Delphinium cheilanthum Fisch.	[1-4, 6, 7, 8, 13]
	Delphinium crassifolium Schrad.	[1, 2, 3, 5, 6, 7]
	Delphinium dictyocarpum DC.	[7]
SE	Delphinium dissectum Huth	[1, 3, 4, 8]
	Delphinium elatum L.	[1, 3, 6, 7]

	Delphinium grandiflorum L.	[1–5, 9, 13]
E	Delphinium gubanovii N.Friesen	[7]
	Delphinium iliense Huth	[14]
	Delphinium inconspicuum Serg. subsp. inconspicuum	[3, 6, 7, 14]
E	Delphinium inconspicuum subsp. mongolicum A.L.Ebel	[7]
SE	Delphinium malyschevii N.Friesen	[1]
	Delphinium mirabile Serg.	[6, 7]
SE	Delphinium sajanense Jurtzev	[1]
	Delphinium triste Fisch.	[1, 2, 3, 4, 8, 13]
	Delphinium ukokense Serg.	[6, 7]
	Halerpestes salsuginosa Greene	[1–4, 6–15]
	Halerpestes sarmentosa (Adams) Kom. & KlobAlis	[3, 4, 6-16]
	Isopyrum anemonoides Kar. & Kir.	[7]
	Leptopyrum fumarioides Rchb.	[1–4, 6–9, 13]
	Oxygraphis glacialis (Fisch.) Bunge	[1, 2, 3, 6, 7, 13]
	Paraquilegia anemonoides Ulbr.	[1, 6, 7]
	Pulsatilla ambigua Turcz.	[1-4, 6, 7, 13]
SE	Pulsatilla bungeana C.A.Mey. [= Pulsatilla bungeana var. ast	ragalifolia (Pobed.)
	Grubov]	[1–11, 13]
	Pulsatilla campanella Fisch.	[1, 3, 6, 7, 14]
	Pulsatilla dahurica (Fisch.) Spreng.	[3, 9]
	Pulsatilla multifida (G.Pritz.) Juz. [≡ Pulsatilla patens subsp.	. multifida
	(G.Pritz.) Zämelis]	[3, 4, 6, 7]
	Pulsatilla patens (L.) Mill. subsp. flavescens (Zucc.) Zämelis	
	$[\equiv Pulsatilla\ flavescens\ (Zucc.)\ Juz.]$	[1, 2, 3, 4, 5, 7]
	Pulsatilla tenuiloba (Hayek) Juz.	[2, 3, 4, 9]
	Pulsatilla turczaninovii Krylov & Serg.	[1-6, 8, 9]
	Ranunculus acris L.	[1-5, 7, 8, 9, 10]
	Ranunculus altaicus Laxm.	[1, 2, 3, 6, 7]
	Ranunculus aquatilis L.	[3, 5, 9]
E	Ranunculus arschantynicus Kamelin, Shmakov & S.V.Smirn	. [7, 14]
	Ranunculus chinensis Bunge	[2, 3, 4, 6, 10]
	Ranunculus circinatus Sibth.	[3, 4, 5, 9, 10]
	Ranunculus confervoides (Fr.) Fr. [= Ranunculus trichophyllus	subsp.
	eradicatus (Laest.) C.D.K.Cook]	[2, 5-10]
	Ranunculus gmelinii DC.	[1, 2, 4, 5, 9]
	Ranunculus gobicus Maxim.	[13]
	Ranunculus grandifolius C.A.Mey.	[3]
	Ranunculus kauffmannii Clerc [≡ Batrachium kauffmannii (	Clerc) Krecz.]
		[2, 7]
_	Ranunculus lapponicus L.	[1, 2, 3, 6, 7, 13]
SE	Ranunculus lasiocarpus C.A.Mey.	[1, 3, 6, 7]
	Ranunculus lingua L.	[14]

	Ranunculus longicaulis C.A.Mey.	[1–3, 6, 7, 11, 14]
	Ranunculus mongolicus (Krylov) Serg. [≡ Batrachium mong	golicum Serg.]
	8 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	[3, 6, 7, 10, 11]
	Ranunculus monophyllus Ovcz.	[1–7]
	* V	[1-4, 6-10, 13, 15]
	Ranunculus pedatifidus Sm. [= Ranunculus rigescens Turcz.]	[1–7, 9, 13, 14]
	Ranunculus polyanthemos L.	[6]
	Ranunculus propinquus C.A.Mey. subsp. propinquus	[1–4, 6–8, 10]
	Ranunculus propinquus var. subborealis (Tzvel.) Luferov	[1, 2, 3, 4]
	Ranunculus pseudohirculus Schrenk	[1–3, 6, 7, 13, 14]
SE	Ranunculus pseudomonophyllus Timokhina	[1, 2]
	Ranunculus pulchellus C.A.Mey.	[1–4, 6–10, 13]
	Ranunculus radicans C.A.Mey.	[1–8, 10, 13]
	Ranunculus repens L.	[2–9]
	Ranunculus reptans L.	[1, 2, 4, 7, 10]
E	Ranunculus sapozhnikovii Schegol.	[7]
	Ranunculus sceleratus L.	[1–9, 11, 13, 14]
SE	Ranunculus schmakovii Erst	[7]
	Ranunculus smirnovii Ovcz.	[2]
	Ranunculus sulphureus subsp. exaltatus Erst	[7]
	Ranunculus tanguticus (Maxim) Ovcz.	[3, 6]
	Ranunculus trautvetterianus Regel	[7]
	Ranunculus trichophyllus Chaix [= Batrachium trichophyllu	m (Chaix) Bosch
	= Batrachium divaricatum (Schrank) Schur]	[1-11, 14]
SE	Ranunculus turczaninovii (Luferov) Vorosch.	[2]
SE	Ranunculus tuvinicus Erst	[7]
	Thalictrum alpinum L.	[1-4, 6, 7, 13]
	Thalictrum baicalense Turcz.	[2, 5]
	Thalictrum contortum L. [= Thalictrum aquilegiifolium var.	sibiricum
	Regel & Tiling]	[5, 9]
	Thalictrum foetidum L.	[1–4, 6–10, 13, 14]
	Thalictrum isopyroides C.A.Mey.	[7, 14]
SE	Thalictrum minus subsp. appendiculatum (C.A.Mey.) Gub	anov [≡ <i>Thalictrum</i>
	appendiculatum C.A.Mey.]	[3]
	Thalictrum minus subsp. elatum (Jacq.) Stoj. & Stef.	
	[= Thalictrum minus subsp. kemense (Fries) Cajander]	[3]
	Thalictrum minus L. subsp. minus	[1-10, 13, 14]
	Thalictrum petaloideum L.	[1, 2, 3, 4, 5, 9]
SE	Thalictrum schischkinii N.Friesen [= Thalictrum altaicum (Sc	hischk.) Serg.] [7]
	Thalictrum simplex L.	[1–10, 13, 14]
	Thalictrum squarrosum Steph.	[2, 3, 4, 5, 8, 9]
	Trollius altaicus C.A.Mey.	[6, 7, 14]
	Trollius asiaticus L.	[1-4, 6, 7, 9, 13]

	Trollius austrosibiricus Erst & Luferov Trollius chinensis Bunge Trollius dschungaricus Regel Trollius ledebourii Rchb. Trollius lilacinus Bunge	[7] [7] [14] [2, 3, 4, 5, 9] [1, 2, 6, 7]
	Trollius sajanensis (Malyschev) Sipliv. Trollius sibiricus Schipcz. Trollius vicarius Sipliv.	[1] [5] [5]
	93. Rhamnaceae Juss. (1 genus and 5 species)	
	Rhamnus davurica Pall.	[2, 4]
	Rhamnus erythroxylon Pall.	[2-4, 8, 9, 12, 13]
	Rhamnus maximovicziana J.J.Vassil.	[13, 16]
	Rhamnus parvifolia Bunge	[2, 4, 5, 9]
	Rhamnus utilis Decne.	[4, 5, 9]
	94. Rosaceae Juss. (28 genera and 168 taxa)	
	Agrimonia pilosa Ledeb.	[1-6, 9]
	Alchemilla argutiserrata H.Lindb.	[7]
E	Alchemilla changaica V.N.Tikhom.	[1,3]
	Alchemilla circularis Juz.	[7]
	Alchemilla cyrtopleura Juz.	[3, 7]
	Alchemilla flavescens Buser	[3]
	Alchemilla gracilis Pax	[3]
	Alchemilla gubanovii V.N.Tikhom.	[2, 3]
	Alchemilla hebescens Juz.	[2, 3, 7]
	Alchemilla krylovii Juz.	[7]
	Alchemilla murbeckiana Buser	[7]
SE		[2, 3, 6]
	Argentina anserina (L.) Rydb. [≡ Potentilla anserina L.]	[1–11, 13–15]
	Aruncus sylvester Kostel.	[5]
	Chamaerhodos altaica Bunge	[1–4, 6–8, 10, 11, 13]
SE	Chamaerhodos corymbosa Murav.	[5, 9]
	Chamaerhodos erecta (L.) Bunge	[1-13]
	Chamaerhodos grandiflora Ledeb.	[5]
	Chamaerhodos sabulosa Bunge	[3, 6–16]
	Chamaerhodos trifida Ledeb.	[4, 5, 8, 9, 12, 13]
	Coluria geoides (Pall.) Ledeb. $[\equiv Dryas geoides Pall.]$	[3, 6]
	Comarum palustre L.	[1, 2, 3, 4, 6]
	Cotoneaster megalocarpus Popov	[7]
	Cotoneaster melanocarpus Lodd.	[1-10, 13, 14]
	Cotoneaster mongolicus Pojark.	[2-5, 7-9, 12, 13]
	Cotoneaster neopopovii Czerep.	[4]

	Cotoneaster uniflorus Bunge	[1, 2, 3, 7, 8, 13]
	Crataegus dahurica Koehne	[2, 4, 5, 9]
	Crataegus maximowiczii C.K.Schneid.	[5]
	Crataegus sanguinea Pall.	[2, 3, 4, 5, 9]
	Dasiphora fruticosa (L.) Rydb. $[\equiv Potentilla fruticosa L.]$	[1-9, 11, 13]
	Dasiphora parvifolia (Fisch.) Juz. [≡ Potentilla parvifolia	Fisch.] [2, 3, 4, 6, 8]
	Dryas grandis Juz.	[1, 7]
	Dryas incisa Juz.	[1]
	Dryas oxyodonta Juz.	[1, 2, 3, 4, 6, 7]
	Dryas punctata Juz.	[1,3]
SE	Dryas sumneviczii Serg.	[1]
	Farinopsis salesoviana (Steph.) Chrtek & Soják	
	[≡ Comarum salesovianum (Steph.) Ledeb]	[6, 7, 10, 11, 13, 14]
	Filipendula angustiloba Maxim.	[5, 9]
	Filipendula palmata Maxim.	[2, 3, 4, 5, 9]
	Filipendula ulmaria (L.) Maxim.	[2, 3, 4]
	Fragaria orientalis Losinsk.	[2, 3, 4, 5]
	Fragaria viridis Weston	[2]
	Geum aleppicum Jacq.	[2, 3, 4, 5, 9]
	Geum rivale L.	[7]
	Malus baccata (L.) Borkh.	[2, 3, 4, 5, 8, 9]
SE	Potaninia mongolica Maxim.	[11, 12, 13, 16]
	Potentilla acaulis L.	[1-11, 13]
	Potentilla acervata Soják [= Potentilla chenteica Soják]	[2-5, 8, 9, 13]
	Potentilla agrimonioides M.Bieb. [= Potentilla lydiae Kur	batski] [7, 14]
	Potentilla altaica Bunge [= Potentilla nivea L. var. pinna	tifida Lehm.] [7]
	Potentilla angustiloba T.T.Yu & C.L.Li	[7, 14]
	Potentilla aphanes Soják	[3, 6, 7, 10, 13, 14]
	Potentilla arenosa (Turcz.) Juz. [≡ Potentilla nivea var. ar	renosa Turcz.]
		[2, 3, 4, 6]
	Potentilla asiatica (Th.Wolf) Juz.	[7]
	Potentilla astragalifolia Bunge	[3, 6, 7, 10, 11]
SE	Potentilla × burjatica Soják	[2]
	Potentilla chalchorum Soják	[2, 3, 7, 9]
SE	Potentilla × chamaeleo Soják	[6, 7, 14]
	Potentilla chinensis Ser.	[4, 5, 9]
	Potentilla chionea Soják	[1–4, 10, 13, 14]
	Potentilla chrysantha Trevir.	[7, 14]
	Potentilla conferta Bunge	[1-9, 12, 13, 14]
E	Potentilla coriacea Soják	[3]
	Potentilla crantzii (Crantz) Fritsch	[7]
	Potentilla crebridens Juz. [= Potentilla nivea var. elongata	
	Potentilla desertorum Bunge	[1, 6, 7, 9, 12–14]

SE	Potentilla × drymeja Soják	[2, 3, 13]
E	Potentilla ekaterinae Kamelin ex Kechaykin	[13]
	Potentilla elegans Cham. & Schltdl.	[1]
	Potentilla elegantissima Polozhij	[3]
	Potentilla evestita Th.Wolf	[1–4, 6, 7, 13, 14]
	Potentilla exuta Soják	[3, 7, 13, 14]
	Potentilla flagellaris D.F.K.Schltdl.	[2, 3, 4, 5, 9]
	Potentilla fragarioides L.	[2, 3, 4, 5, 7]
		[1–3, 6, 7, 9, 13, 14]
E	Potentilla gobica Soják	[14]
SE	Potentilla gracillima Kamelin	[3, 7, 10]
E	Potentilla hilbigii Soják	[3]
E	Potentilla hubsugulica Soják	[1]
E	Potentilla ikonnikovii Juz.	[7, 13]
E	Potentilla inopinata Soják	[6, 7]
	Potentilla jenissejensis Polozhij & W.Smirnova	E / . J
	[= Potentilla agrimonioides M.Bieb. var. kobdoensis So	ják] [6, 7, 10]
	Potentilla kryloviana Th.Wolf	[3, 7, 14]
Е	Potentilla laevipes Soják	[7]
E	Potentilla laevissima Kamelin	[7]
	Potentilla leucophylla Pall. [= Potentilla betonicifolia Poir.]	
	Potentilla longifolia D.F.K.Schltdl.	[1–13]
E	Potentilla mongolica Krasch.	[3, 8]
	Potentilla multicaulis Bunge	[1,3]
	Potentilla multifida L. [= Potentilla tenella Turcz.]	[1–14]
	Potentilla nivea L.	[1–4, 6, 7, 13, 14]
	Potentilla norvegica L. [= Potentilla monspeliensis L.]	[1, 2, 3, 4]
	Potentilla nudicaulis D.F.K.Schltdl. [= Potentilla strigosa I	
SE	Potentilla × olchonensis Peschkova	[6]
	Potentilla ornithopoda Tausch	[1-4, 6, 7, 10, 14]
SE	Potentilla ozjorensis Peschkova	[1, 3, 4, 7]
	Potentilla pamirica Th.Wolf	[6, 7, 10, 14]
	Potentilla pamiroalaica Juz.	[14]
	Potentilla pensylvanica L. [ $\equiv$ Pentaphyllum pennsylvanicum	ı (L.) Lunell]
		[1–11, 13, 14]
	Potentilla regeliana Th.Wolf	[6]
SE	Potentilla × rhipidophylla Soják	[3]
SE	Potentilla rigidula Th.Wolf	[6, 10]
	Potentilla sanguisorba D.F.K.Schltdl.	[1, 2, 3, 4, 12, 13]
E	Potentilla schmakovii Kechaykin	[7, 14]
SE	Potentilla sergievskajae Peschkova	[5, 8]
	Potentilla sericea L.	[1-4, 6-13, 15]
SE	Potentilla serrata Soják	[3]

SE	Potentilla sischanensis Bunge [4, 9	)]
	Potentilla songorica Bunge [10, 14	Ĺ]
SE	Potentilla stepposa Soják [7, 10	)]
	Potentilla subdigitata T.T.Yu & C.L.Li	
	[= Potentilla junatovii Rudaya & A.L.Ebel] [7	7]
	Potentilla supina L. [1–12, 14–16	_
	Potentilla tanacetifolia D.F.K.Schltdl. [2–9, 12, 13	_
	Potentilla tergemina Soják [2, 3, 4, 5, 9	_
SE	Potentilla tericholica Sobolevsk. [6, 7	_
	Potentilla tetrandra (Bunge) Hook.f. [≡ Sibbaldia tetrandra Bunge] [1, 3, 6, 7]	_
	Potentilla turczaninowiana Stschegl. [6, 7, 14	
	Potentilla turkestanica Soják [7, 14	
Е	Potentilla tytthantha (Soják) Kechaykin [6, 7	_
E	Potentilla × vanzhilii Gundegmaa & Kechaykin [3	_
_	Potentilla verticillaris Stephan [2, 3, 4, 5, 8, 9]	-
	Potentilla virgata Lehm. [1, 3, 4, 6–15]	_
	Prunus mongolica Maxim. [ $\equiv$ Amygdalus mongolica (Maxim.) Ricker ] [12, 13, 16]	_
	Prunus padus L. [1, 2, 3, 4, 5, 9]	_
	Prunus pedunculata (Pall.) Maxim. [\equiv Amygdalus pedunculata Pall.] [2, 3, 4]	_
	6–13, 16	
	Prunus sibirica L. $[\equiv Armeniaca sibirica (L.) Lam.]$ [2, 3, 4, 5, 9]	_
	Rosa acicularis Lindl. [1–9, 13	
	Rosa albertii Regel	_
E	Rosa baitagensis Kamelin & Gubanov [14	
	Rosa beggeriana Schrenk [14	
	Rosa davurica Pall. [2, 4, 5, 9	)]
	Rosa kokanica (Regel) Regel [7	·]
	Rosa laxa var. kaschgarica (Rupr.) Y.L.Han [= Rosa kaschgarica Rupr.] [14, 15	<u>.</u>
	Rosa laxa Lindl. var. laxa [6, 7, 13, 14, 15]	
	Rosa oxyacantha M.Bieb. [1, 2, 3, 7	_
	Rosa platyacantha Schrenk [14	
	Rosa spinosissima L. [3, 7, 14	ί]
	Rosa xanthina Lindl.	)]
	Rubus arcticus L. [1, 2, 3, 4	Ĺ]
	Rubus chamaemorus L. [2	
	Rubus humilifolius C.A.Mey. [1, 2	<u>'</u> ]
	Rubus sachalinensis H.Lév. [1, 2, 3, 4, 7, 8	3]
	Rubus saxatilis L. [1, 2, 3, 4, 5, 9]	
	Sanguisorba alpina Bunge [3, 6, 7	<b>'</b> ]
	Sanguisorba officinalis L. [1–11	
	Sanguisorba parviflora (Maxim.) Takeda [9	_
	Sanguisorba tenuifolia Fisch. [4, 9	
	Sibbaldia procumbens L. [2, 7	

	Sibbaldianthe adpressa (Bunge) Juz. [≡ Sibbaldia adpressa : Sibbaldianthe bifurca (L.) Kurtto & T.Erikss. [≡ Potenti Sibbaldianthe imbricata (Kar. & Kir.) Mosyakin & Shiy	illa bifurca L.] [1–14]
	[≡ Potentilla imbricata Kar. & Kir.]	[6, 7, 10, 14]
	Sibbaldianthe orientalis (Soják) Mosyakin & Shiyan	[0, /, 10, 11]
	[= Potentilla bifurca var. major Ledeb.]	[7, 8, 9, 14]
	Sibbaldianthe semiglabra (Soják) Mosyakin & Shiyan	[, , -, , ,]
	[≡ Potentilla semiglabra Juz.]	[5, 9]
SE	Sibbaldianthe sericea Grubov	[7, 8, 12, 13]
	Sibiraea laevigata (L.) Maxim.	[7]
	Sorbaria sorbifolia (L.) A.Braun	[4,5]
	Sorbus aucuparia L. subsp. glabrata (Wimm. & Grab.)	-
	[= Sorbus sibirica Hedl.]	[1, 2, 3, 4, 5]
	Spiraea alpina Pall.	[1, 2, 3, 6, 7]
	Ŝpiraea aquilegiifolia Pall.	[1–5, 8, 9, 12, 13]
	Ŝpiraea chamaedryfolia L.	[5]
	Spiraea dahurica (Rupr.) Maxim.	[2, 4]
	Spiraea elegans Pojark.	[4]
	Spiraea flexuosa Fisch.	[1–6, 8, 9, 13]
	Spiraea hypericifolia L.	[2–4, 6, 7, 9, 10, 12,
	Spiraea media F.Schmidt subsp. media [= Spiraea sericea	
	China and the Tours	13]
	Spiraea pubescens Turcz. Spiraea salicifolia L.	[4, 5, 9] [2, 3, 4, 5, 9]
	Spiraea saiicijoua L.	[2, j, 4, j, j]
	95. Rubiaceae Juss. (3 genera and 13 taxa)	
E	Asperula gobicola Grubov [= Asperula saxicola Grubov]	[13, 16]
	Galium amblyophyllum Schrenk	[1, 2, 14]
	Galium boreale L.	[1-10, 13, 14]
	Galium dahuricum Turcz.	[2]
	Galium densiflorum Ledeb.	[3, 6, 7, 14]
	Galium humifusum M.Bieb.	[3, 7, 13]
	Galium songaricum Schrenk	[1, 2, 3]
	Galium spurium L.	[1–8, 10, 13, 14]
	Galium trifidum L.	[2-5, 7, 10, 14]
	Galium uliginosum L.	[1, 2, 3, 4, 10]
	Galium verum L. subsp. verum [= Galium densiflorum I	Ledeb.] [1–10, 13, 14]
	Galium verum subsp. wirtgenii (F.W.Schultz) Oborny	[7]
	Rubia cordifolia L. [≡ Galium cordifolium (L.) Kuntze]	[2–5, 8, 9, 12, 13]
	<b>96. Ruppiaceae</b> Horan. (1 genus and 1 species)	
	Ruppia maritima L.	[10]
	<i>II</i>	[-0]

9	77. Rutaceae Juss. (2 genera and 2 species)	
	Haplophyllum dauricum (L.) G.Don	[2–6, 8, 9, 11–14, 16]
	Dictamnus albus L.	[5, 9]
Q	<b>98. Salicaceae</b> Mirb. (2 genera and 47 species)	
,	Populus euphratica Olivier	[12–16]
	Populus laurifolia Ledeb. [= Populus pilosa Rehder]	[2–4, 6, 7, 10, 13, 14]
	Populus simonii Carrière	[9]
	Populus suaveolens Fisch.	[1, 2, 3, 4]
	Populus tremula L.	[1-5, 7-9, 11]
	Salix abscondita Laksch.	[1, 2, 4, 5, 13]
	Salix alatavica Kar.	[6, 7]
	Salix arctica Pall.	[1, 3, 6, 7]
	Salix bebbiana Sarg.	[1-10, 12, 13]
	Salix berberifolia Pall.	[1, 2, 3, 6, 7, 13]
	Salix brachypoda (Trautv. & C.A.Mey.) Kom.	[2, 4, 5, 9]
	Salix caesia Vill.	[1–4, 6, 7, 10, 14]
	Salix divaricata Pall.	[1-4, 6, 7, 13]
	Salix glauca L.	[1, 2, 3, 6, 7, 13]
	Salix gmelinii Pall. [= Salix dasyclados Wimmer]	[2, 4, 6, 7, 8, 10]
	Salix gordejevii Y.L.Chang & Skvortsov	[5, 8, 9]
	Salix hastata L.	[1, 6, 7, 10, 13]
	Salix jenisseensis (F.Schmidt) Flod.	[1, 6, 7]
	Salix kochiana Trautv.	[1-5, 7, 10]
	Salix ledebouriana Trautv.	[1–4, 6, 7, 9–15]
	Salix microstachya Turcz.	[2–6, 8, 9, 10]
	Salix miyabeana Seemen	[1-5, 8, 9]
	Salix myrtilloides L.	[1, 2, 3]
SE	Salix nasarovii A.K.Skvortsov	[1]
	Salix nipponica Franch. & Sav.	[9]
	Salix nummularia Andersson	[2, 3, 6, 7]
	Salix polaris Wahlenb.	[1]
	Salix pseudopentandra (Flod.) Flod. [= Salix pentandra	a var. <i>intermedia</i> Nakai]
		[1–10, 12, 13]
	Salix pyrolifolia Ledeb.	[1-4, 6, 7, 10]
	Salix rectijulis Ledeb.	[1, 2, 3, 6, 7]
	Salix recurvigemmata A.K.Skvortsov [= Salix recurvige	emmis A.K.Skvortsov]
		[1, 3, 6]
	Salix reticulata L.	[1, 3, 6, 7]
	Salix rhamnifolia Pall.	[1–6, 9]
	Salix rorida Laksch.	[2, 3, 4, 5, 9]
	Salix rosmarinifolia L.	[1-4, 6, 10, 14]
	Salix sajanensis Nasarow	[1, 6, 7]

	Salix saposhnikovii A.K.Skvortsov	[1, 3, 6, 7]
	Salix saxatilis Turcz.	[1, 2, 3]
	Salix schwerinii E.L.Wolf	[2, 3, 4, 5, 9]
	Salix taraikensis Kimura	[1-5, 7, 13]
	Salix tenuijulis Ledeb.	[3, 7, 14, 15]
	Salix triandra L.	[1, 3, 4, 14]
	Salix turanica Nasarow	[6, 7, 10, 14]
	Salix turczaninowii Laksch.	[1, 2, 6, 7]
	Salix udensis Trautv. & C.A.Mey.	[9]
	Salix vestita Pursh	[1, 3, 6, 7]
	Salix viminalis L.	[3, 6, 7, 10, 11, 14]
9	9. Santalaceae R.Br. (1 genus and 6 species)	
	Thesium chinense Turcz.	[9]
	Thesium longifolium Turcz.	[2, 3, 4]
	Thesium refractum C.A.Mey.	[1-10, 13]
	Thesium repens Ledeb.	[1, 2, 3, 4]
SE	Thesium saxatile Turcz.	[1, 3-6, 8-10]
SE	Thesium tuvense Krasnob.	[5, 10]
OL.	Thesium twoense Idashoo.	[), 10]
1	<b>00. Saxifragaceae</b> Juss. (5 genera and 21 taxa)	
	Bergenia crassifolia (L.) Fritsch	[1, 2, 3, 4, 7]
	Chrysosplenium nudicaule Bunge	[6]
SE	Chrysosplenium peltatum Turcz.	[1,3]
SE	Chrysosplenium sedakowii Turcz.	[2, 3, 8]
	Chrysosplenium serreanum HandMazz.	
	[= Chrysosplenium alternifolium subsp. sibiricum (Ser.	
	Micranthes davurica (Willd.) Small $[\equiv Saxifraga\ davurica]$	
	Micranthes foliolosa (R.Br.) Gornall [ $\equiv$ Saxifraga foliolosa 1	R.Br.] $[1, 2]$
	Micranthes hieraciifolia (Waldst. & Kit.) Haw.	
	[≡ <i>Saxifraga hieraciifolia</i> Waldst. & Kit.]	[1, 2, 3, 6, 7]
	Micranthes melaleuca (Fisch.) Losinsk.	
	[≡ Saxifraga melaleuca Fisch.]	[1, 2, 6, 7]
	Micranthes nelsoniana subsp. aestivalis (Fisch. & C.A.Mey	y.) Elven &
	D.F.Murray [ $\equiv$ Saxifraga aestivalis Fisch. & C.A.Mey.	[1, 2, 3, 6]
	Micranthes nivalis (L.) Small $[\equiv Saxifraga\ nivalis\ L.]$	[1]
	Mitella nuda L.	[1, 2, 4]
	Saxifraga bronchialis L. [= Saxifraga caulescens Sipliv.,	
	= Saxifraga spinulosa Adams]	[2, 3, 4, 8]
	Saxifraga cernua L.	[1–3, 6–9, 13]
	Saxifraga hirculus L.	[1-7, 13, 14]
	Saxifraga macrocalyx Tolm. [= Saxifraga flagellaris Willd.]	[1, 3, 6, 7, 13, 14]

Saxifraga oppositifolia L. subsp. oppositifolia [= Saxifra	•
Sanifaga catigana Durch	[1, 3, 6, 7]
Saxifraga setigera Pursh	[1, 2, 3, 6, 7, 13] [1–3, 6–8, 10, 13, 14]
Saxifraga sibirica L.	[1-3, 6-8, 10, 13, 14]
Saxifraga terektensis Bunge	[1, 0, 0, /]
101. Scheuchzeriaceae F.Rudolphi (1 genus and 1 specie	es)
Scheuchzeria palustris L.	[2]
102. Scrophulariaceae Juss. (3 genera and 6 species)	
Limosella aquatica L.	[1-4, 6, 7, 9-11, 13, 14]
Scrophularia altaica Murray	[1, 3, 6, 7]
Scrophularia canescens Bong. [= Scrophularia hilbigii J	äger] [13, 14]
Scrophularia incisa Weinm.	[2-4, 6-15]
Scrophularia umbrosa Dumort.	[10]
Verbascum thapsus L.	[4]
103. Solanaceae Juss. (4 genera and 9 taxa)	
Hyoscyamus niger L.	[2-5, 7-10, 12, 13]
Hyoscyamus pusillus L.	[6, 7, 10, 14, 15]
Lycium chinense var. potaninii (Pojark.) A.M.Lu $[\equiv Ly]$	vcium potaninii Pojark.] [16]
Lycium ruthenicum Murray	[10, 11, 13–16]
Lycium truncatum Y.C.Wang	[10, 12, 15, 16]
Physochlaina albiflora Grubov	[3, 4]
Physochlaina physaloides (L.) G.Don	[1, 3–9, 11–13]
Solanum kitagawae SchönbTem.	[3, 6, 9, 14]
Solanum septemlobum Bunge	[4, 8, 9, 12]
<b>104. Tamaricaceae</b> Link (3 genera and 13 taxa)	
Myricaria bracteata Royle	[1, 7, 11–14, 16]
Myricaria longifolia Ehrenb.	[2-4, 6, 7, 11]
Reaumuria soongarica Maxim.	[3, 6–16]
Tamarix arceuthoides Bunge	[10, 14, 15]
Tamarix elongata Ledeb.	[11, 14]
Tamarix gracilis Willd.	[13, 15, 16]
Tamarix hispida Willd.	[13]
<i>Tamarix</i> × <i>karelinii</i> Bunge	[10, 14–16]
Tamarix kasahorum Gorschk.	[15, 16]
Tamarix laxa Willd.	[11, 12, 15]
Tamarix leptostachya Bunge	[10, 13–16]
Tamarix ramosissima Ledeb.	[10, 12–16]
Tamarix smyrnensis Bunge	[12, 14, 16]

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105. Thymelaeaceae Juss. (2 genera and 3 species)	
<i>Diarthron altaicum</i> (ThiébBern.) Kit Tan [≡ <i>Stellera</i>	
	[7]
Diarthron linifolium Turcz.	[2, 3, 4, 5]
Stellera chamaejasme L.	[2, 3, 4, 5, 9]
106. Tofieldiaceae Takht. (1 genus and 1 species)	
Tofieldia coccinea Richardson	[1]
107. Typhaceae Juss. (2 genera and 12 species)	
Sparganium emersum Rehmann	[3, 5, 6, 7, 9, 10]
Sparganium glomeratum (Laest.) Beurl.	[2, 4]
Sparganium natans L.	[7, 10]
Sparganium stoloniferum (Graebn.) BuchHam.	[1, 4, 8, 9, 10]
Typha angustifolia L.	[1, 10]
Typha domingensis Pers.	[4, 10]
<i>Typha joannis</i> Mavrodiev	[9]
Typha latifolia L.	[2, 5]
Typha laxmannii Lepech.	[3–6, 8, 9, 11]
<i>Typha minima</i> Funck	[9, 10]
Typha orientalis C.Presl	[5]
<i>Typha tzvelevii</i> Mavrodiev	[4]
108. Ulmaceae Mirb. (1 genus and 3 taxa)	
Ulmus davidiana var. japonica (Rehder) Nakai	[4, 5, 8]
Ulmus macrocarpa Hance	[2, 4, 5, 8, 9, 12]
Ulmus pumila L.	[2–5, 7–9, 11, 13, 16]
109. Urticaceae Juss. (2 genera and 4 taxa)	
Parietaria debilis G.Forst.	[2-4, 6, 9, 10]
Urtica angustifolia Fisch.	[1-5, 7, 9, 10]
Urtica cannabina L.	[2–10, 12–14]
<i>Urtica dioica</i> L. subsp. <i>sondenii</i> (Simm.) Hyl. [≡ <i>Urtica</i> s	sondenii (Simm.) Avror]
	[7, 14]
110. Violaceae Batsch. (1 genus and 27 taxa)	
Note: Recently, Esput (2020) critically revised the genu	
Far East and adjacent territories. In this study, accepted s	species and nomenclature

Note: Recently, Esput (2020) critically revised the genus *Viola* L in the Russian Far East and adjacent territories. In this study, accepted species and nomenclature mostly follow Esput (2020). *Viola acuminata* Ledeb.

[4, 5, 9]

	Viola acuminata Ledeb.	[4, 5, 9]
SE	Viola alexandrowiana (W.Becker) Juz.	[4]
	Viola altaica Ker Gawl.	[3, 7]

	Viola arvensis Murray	[4]
	Viola biflora L.	[1, 2, 3, 7]
	Viola brachyceras Turcz.	[2]
	Viola collina Besser	[5, 7]
	Viola dactyloides Schult.	[2, 3, 4, 5, 6]
	Viola disiuncta W.Becker	[7]
	Viola dissecta Ledeb.	[1–5, 7, 9, 13]
	Viola epipsiloides Á.Löve & D.Löve	[1, 2]
	Viola gmeliniana Schult.	[1, 2, 3, 4, 5]
	Viola incisa Turcz.	[2, 4]
SE	Viola ircutiana Turcz.	[2]
	Viola macroceras Bunge	[7]
	Viola mauritii Teplouchow	[1, 4, 5, 7, 9, 13]
	Viola mirabilis L.	[2, 5]
	Viola nemoralis Kuetz.	[2]
	Viola patrinii Ging.	[2, 5, 7, 9, 10, 14]
	<i>Viola rudolfii</i> Vl.V.Nikitin	[4, 5]
	Viola rupestris F.W.Schmidt	[2, 3, 4, 6, 7]
	Viola sacchalinensis H.Boissieu	[2, 4, 5]
	<i>Viola</i> × <i>schauloi</i> Vl.V.Nikitin	[2, 4]
	Viola selkirkii Pursh	[2]
	Viola tenuicornis subsp. trichosepala W.Becker	[4]
	Viola uniflora L.	[1, 2, 3, 4, 7]
	Viola variegata Fisch.	[1, 4, 5]
	111. Zygophyllaceae R.Br. (2 genera and 13 taxa)	
	Tribulus terrestris L.	[3, 5–16]
	Zygophyllum brachypterum Kar. & Kir.	[6, 10]
	Zygophyllum gobicum Maxim.	[14, 15]
	Zygophyllum kaschgaricum Boriss.	
	[≡ Sarcozygium kaschgaricum (Boriss.) Y.X.Liou]	[12–16]
	Zygophyllum macropterum C.A.Mey.	
	[= Zygophyllum pinnatum Cham. & Schltdl.]	[7, 14]
SE	Zygophyllum melongena Bunge	[3, 6, 7, 10, 11, 13,
		14]
SE	Zygophyllum mucronatum Maxim.	[15, 16]
E	Zygophyllum neglectum Grubov	[10, 13, 14, 16]
	Zygophyllum potaninii Maxim.	[6, 7, 12–16]
	Zygophyllum pterocarpum Bunge	[6, 7, 10–16]
	Zygophyllum rosowii var. latifolium (Schrenk) Popov	[13–16]
	Zygophyllum rosowii Bunge var. rosowii	[3, 7, 8, 10–16]
	Zygophyllum xanthoxylon (Bunge) Maxim.	[7, 8, 10–16]

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# Supplementary material I

## Appendix 1

Authors: Baasanmunkh et al.

Data type: Checklist

Explanation note: List of new species (marked by red color) and new records to the flora of Mongolia, since Urgamal et al (2014).

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Link: https://doi.org/10.3897/phytokeys.192.79702.suppl1

# Supplementary material 2

# Appendix 2

Authors: Baasanmunkh et al.

Data type: Checklist

Explanation note: Changes of accepted names compared with Urgamal et al (2014).

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